Lettsomian Lectures
ON THE
SURGERY OF THE FACE.

Delivered at the Medical Society of London, January 1878,

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LECTURE I.—PART I.
DISEASES OF THE FACE.

MR. PRESIDENT AND GENTLEMEN,—My first and most obvious duty is to express to the Council my sincere thanks for the honour they have conferred upon me by electing me as the Lettsomian lecturer for the current session. I must confess that whilst I am deeply sensible of the compliment that has been paid me, I am at the same time profoundly conscious of the responsibility that so distinguished a position involves.

In contemplating how I might best occupy the time allotted to the three lectures that I shall have the honour of delivering, I remembered that for many years I had taken considerable interest in the surgery of the face, mouth, throat, and contiguous parts, and, as I had collected several thousand references bearing on these regions—representing, as may be supposed, an immense amount of valuable information—I came to the conclusion that if I sifted some of these references, I might be enabled to submit to the Fellows of the Society many points of more than ordinary or passing interest. I venture therefore to engage your attention by describing, as far as my limited time will allow, the surgery of the face, and in bringing this subject before you, I must beg your kind indulgence, inasmuch as I shall necessarily have to refer to many topics with which I feel sure you are all more or less familiar; and I wish to say, at starting, that my object is not to excite sensation, or to provoke controversy by placing before you novelties, but is rather to group together a number of cases I have culled from various sources, including many that have been under my own observation, and which have special reference to the surgery of a region which from its conspicuousness forms a very important part of the human body.

My first lecture will be devoted to the diseases, the second to injuries, and the third to the deformities of the face.

In order to render my subject as complete as possible, it will be necessary for me to make a few observations on skin diseases, and these need not detain us long.

Erythema, Roscola, and Urticaria.

These diseases are not unfrequently met with on the face, and resemble each other in many particulars.

In *Erythema* the face is covered more or less with blotches of either a bright red or bluish hue. The eruption depends upon various causes, into which I need not now enter, but I may make a passing reference to the peculiar erythematous blush that is occasionally noticed on the body after surgical operations even of the most trivial kind. The face often participates in the general eruption, which has almost a scarlatinal character. It is amenable to simple treatment, and is chiefly important from a diagnostic point of view. Erythema circinatum is particularly seen on the chin and lips, and appears as distinct circles, or segments of circles. Erythema nodosum is sometimes observed on the forehead, and very much resembles the same disease noticed on the front of the legs in delicate women. It has been mistaken for nodes, but with a little care a correct diagnosis may be arrived at.

In *Roscola* there is less swelling of the skin. The eruption is first of a bright red, which gradually subsides into a deep rosy hue. In this disorder there is more or less redness about the palate and fauces.

Urticaria or *Nettle-rash* is sometimes limited to the face, and seems to be an aggravated form of erythema or roscola, its characteristic point being the presence of a number of elevations or wheals of variable shape, which are produced by spasm of the muscular fibres of the skin, with a slight effusion of serum. Mr. Erasmus Wilson has pointed out that in the wheals of urticaria an alternate contraction and relaxation of the muscular fibres may be observed, which gives an appearance of pulsation, as of an ebb and flow of blood in the capillary vessels.

All these eruptions may, in most instances, be traced to some error in diet, and are prevalent at particular seasons of the year, especially if there be sudden alternations of temperature. I need not add that certain medicines produce similar eruptions. As a rule these diseases require but little treatment beyond attention to diet, with the administration of saline purgatives, alteratives, and suitable tonics.

Lichen.

Lichen is often found on the face of infants and children, and seems to be due to the irritation caused by teething. The eruption is easily recognised, and if the finger be passed lightly over the skin of the part affected, the cutaneous surface feels like a delicate nutmeg grater. There is generally more or less erythema present. In simple cases the eruption undergoes desquamation, and thus a cure is effected, whereas in the more severe forms, as in lichen agrius, there is considerable inflammatory action, inducing a copious serous discharge, almost amounting to eczema, and accompanied by much constitutional disturbance.

Herpes.

Herpes is commonly met with on the face, attacking chiefly the lips, eyebrows, and ears. The vesicles, which are dome-shaped, appear in groups of patches, more or less circular in form. Moreover, they are frequently found to coincide exactly with the cutaneous distribution of certain nerves. Thus, in one case reported, the eruption was limited to the distribution of the left supra-orbital nerve, and throughout showed its distinctive nerve character. Five days before the eruption appeared there was constant neuralgia in the exact course of this nerve. The vesicles ran upwards over the forehead, and as far as the top of the head, in a longitudinal direction. The eruption was markedly limited to the left side of the forehead and head, the side of the nose, and to the left upper eyelid. Sir James Paget has placed on record an interesting example in which the parts supplied by the second division of the right fifth cerebral nerve were implicated. In this instance, as in the previous one, extreme pain preceded the eruption. This case was, moreover, considered unique in having necrosis of the jaw as a consequence of the intense inflammation of the palate and gums. Twenty-six days from the commencement of the disease one of the bicuspid teeth of the right side of the upper jaw fell out, on the next another, and in a few days later the canine and both incisors. The herpetic eruption was also noticed on the roof of the mouth.

Eczema.

The eyebrows and ears are no uncommon situations for eczema. In this eruption there is a constant serous exudation, hence its title "humid tetter." The vesicles have a pointed or acuminated form, and if the disease is unchecked, it assumes a somewhat purulent character, bordering on impetigo, and known as eczema impetiginodes, a disease frequently noticed on the alæ of the nose and on the lips of ill-fed children.

The eruptions of *impetigo* and *ecthyma* often coexist, and I need hardly add that their main difference is that in impetigo the eruption is generally confluent, whereas in ecthyma the pustules are solitary, and have an inflamed base.

The constitutional treatment of these diseases must be conducted on general principles, but local applications are particularly suitable when there is much serous exudation. Ointments of a simple character, such as zinc ointment or compound subacetate of lead ointment, are especially serviceable, as they prevent evaporation, and thus obviate the production of scabs.

Psoriasis and Lepra.

These affections are occasionally met with on the face. They are characterised by their dryness, and in this respect differ essentially from eczema. Psoriasis that follows the infecting or true syphilitic sore does not, I venture to believe, commonly affect the face, and when this part is attacked, the inference is, as I think, that the patient has been rather severely poisoned by the disease. The severity of the attack is further indicated by the eruption appearing simultaneously on the palms of the hands and the soles of the

feet. From some cause the face and the dorsum of the hands—parts exposed to atmospheric influences and exposed also to observation—seem, fortunately for the sufferer, to possess comparative immunity. The administration of arsenic, iron, iodide of potassium, and the perchloride or other preparations of mercury, generally effects a cure. Locally the white precipitate ointment may be advantageously employed.

Parasitic Diseases.

Of the parasitic diseases we have the type of the animal parasite in *scabies*, which is said by some authorities never to attack the face, but I am sure that it is occasionally found in this region. When it occurs on this part, Dr. Tilbury Fox has noticed that it is occasionally accompanied by sympathetic eczema about the scalp, and in children by ecthymatous pustules.

The *tineæ* or vegetable parasites are not unfrequently seen on the face. Thus tinea circinata is occasionally observed on the chin and on the cheek, as shown in the woodcut (Fig. 1, taken from a photograph). Tinea decalvans

FIG. 1.

manifests itself as bald patches on the skin in the region of the whiskers or beard, and tinea sycosis especially attacks the chin. I may say briefly respecting the treatment, that ointments containing sulphur are invaluable in scabies, and slight mercurial preparations are useful in the different forms of tineæ.

Acne.

The only other eruption to which I need now refer is acne, which is perhaps the most common of all diseases of the skin of the face. Acne punctata appears as small black spots, which are the orifices of the sebaceous follicles blocked up with sebaceous matter, dirt, and soap. Its most usual situations are those that escape the friction of the towel after washing. Thus the disease is particularly noticed on the cheeks, beneath the prominence of the malar bone, between the chin and lower lip, on the side of the nose, in the temporal region, and especially in the concha of the ear. In acne simplex there is peri-follicular inflammation, and very often the black spots of acne punctata may be observed at the summit of the small pustules. In acne indurata the inflammatory action is of subacute character. Here the black spot is seldom observable, but instead there is a hard, somewhat diffused lump, which is readily appreciable to the touch. These varieties of acne are essentially diseases of early adult life, and are met with, as a rule, from puberty to about the age of thirty. They are often rebellious to treatment, but may be kept in abeyance by the patient attending strictly to diet and by irritating the parts as little as possible. It is best not to wash the face more frequently than is absolutely necessary, and warm water alone, without soap, should be used. The part should be dried with a soft towel. Acne rosacea seldom appears before the age of forty, and thus differs from the other varieties already described. The face is especially its local habitation. It is observed partly on the nose, and extends laterally to the cheeks as a reddish patch, on which a few pustules are here and there scattered. Although it is often attributed by the ignorant to high living, it is very frequently an indication of imperfect digestion, and occurs, as is very well known, in persons of the most abstemious habits.

Boils and Carbuncles.

Boils and carbuncles occasionally attack the lips, cheeks, and forehead. They cause great disfigurement, and are attended with more or less, but sometimes a considerable amount of, pain. The more circumscribed swelling in a boil gives it its distinctive character, and it comes, from time to times, in this, as in other parts of the body, in crops, whereas carbuncle is usually solitary, and there is a diffuse, brawny, and peculiar hardness due to the arrangement of the soft structures comprising the lips, cheeks, and neighbouring parts. With regard to local treatment the question of making incisions seems still to be *sub judice*. I venture to think that in most instances boils and carbuncles are better left to nature, the surgeon merely assisting by advising the free application of warm-water dressings. By this mode of treatment the surrounding parts become thoroughly relaxed, and thus the inflammatory products are more readily carried off. It is not often that facial carbuncle is followed by a fatal termination, yet Dr. Cockle brought before the notice of this Society in 1874 an example of death from this disease, which was situated on the left side of the upper lip.[1] Mr. Cæsar Hawkins also reports a fatal case of a carbuncle which attacked the chin, and was as large as a tennis ball.[2] Both these patients died of pyæmia. Again, Mr. Thomas Smith has directed attention to two deaths from facial carbuncle. He attributed the fatality of this form of carbuncle to the susceptibility of the face to erysipelas and œdema, and also to the peculiarities of the venous circulation shown by the sudden deaths that have been occasionally noticed after injecting nævi of the face with strong styptics, such as the tincture of the perchloride of iron.[3]

Abscesses.

Abscesses of idiopathic origin are not very common, but they are occasionally seen on the face, and the usual variety is that which is known as strumous abscess. It is of slow growth, and exists as a collection of sero-purulent fluid, immediately under a reddened, thin, and generally oblong portion of skin, the cheek being a common situation. A good plan of treating these abscesses is to make a small opening in a dependent position, which allows the contents to exude spontaneously. If, in addition, a pad of lint of suitable size be applied over the abscess, a reaccumulation of the matter is obviated. These abscesses are comparatively painless, their progress is slow, yet even with the greatest care and attention, they are frequently followed by ugly cicatrices, which are well shown in Fig. 2, taken from a photograph.

FIG. 2.

Fistulous openings on various parts of the face are not unfrequently met with as the result of decayed teeth, or of necrosis of the subjacent bones, the lower jaw, for example, as shown in the accompanying woodcut (Fig. 3), taken from a photograph. Or they may depend upon the presence of other foreign bodies, as in a case that was under the care of Mr. Henry Smith, which was sent to him in the belief that there was necrosis of the jaw. After a careful examination, Mr. Smith discovered and removed a piece of tobacco-pipe, about three inches long, which had been imbedded in the cheek for several years.[4]

Sometimes the disease may be traced to the antrum, as in a case that Dr. Richardson kindly placed under my care about three years ago. In operating on the patient I thought it advisable to divide the upper lip in the median

[1] Proceedings of Med. Soc., vol. i, p. 163.
[2] THE LANCET, Nov. 17th, 1860, p. 487.
[3] Clin. Soc. of London, Jan. 14th, 1870.
[4] Assoc. Med. Journal, Nov. 10th, 1854, p. 1017.

line, and having separated the soft parts from the bone I freely opened the antral cavity. A large quantity of offensive cheesy material was evacuated, and the patient made an excellent recovery.

FIG. 3.

Abscesses connected simply with the soft parts may be complicated with erysipelas, but they are rarely dangerous to life. Dr. Bacon, of the Fulbourne Lunatic Asylum, has, however, placed on record an interesting example to prove that even death may occasionally occur in such cases. His patient was a lunatic who had an abscess of the cheek caused by a decayed tooth. In three or four days from the commencement of the attack the patient died comatose from the extension of the inflammation into the brain.[5]

Ulcers.

Ulcers of infinite variety are met with in the face, and are frequently the result of injuries by which the soft parts have been more or less damaged; or they may arise idiopathically, as in rodent ulcer and epithelioma, of which I shall speak presently.[6]

The cachectic ulcer is frequently found on the face. It begins as one or more hard lumps of variable size in the subcutaneous tissue, in which at first there is but little pain. To these indurations the name of "gummata" has been applied, and they are said to be usually due to syphilitic taint. There are, however, many examples of this ulcer, in which the history of syphilis is entirely wanting. Thus, I here show you several photographs of patients having such ulcers, and in none of these instances was there, as far as I could make out, the slightest trace of syphilis.

Whilst on the subject of ulcers, I must not omit to refer to the possible presence of the true infecting syphilitic sore which has been met with on various parts of the face. These sores are important chiefly from a diagnostic point of view, for they have not unfrequently been mistaken for cancer, and have been treated accordingly. In illustration of this point, I may say that in 1872 I saw a man at the hospital, who was twenty-six years of age, and had been operated upon three times within two months for, as he said, cancer of the lower lip. When I saw him he had about his body the clearest evidence of constitutional mischief. What remained of the lower lip presented an uneven, jagged, white patchy appearance, which seemed to me, as well as to those who examined him, to be markedly characteristic of syphilitic infection. He was placed on the solution of perchloride of mercury, and he recovered. His object in applying at the hospital was to undergo a further operation.[7]

By the kindness of Mr. Royes Bell I am enabled to show you a photograph of one of his patients, having a well-marked infecting sore on the upper lip.

Cysts.

Cysts, or cystic tumours, of various kinds are frequently found on the face. Perhaps the commonest variety is the sebaceous tumour, well represented in Fig. 4 (taken from a photograph). Such cysts are of slow growth, and often present at their summit a black spot, as was the case in the patient just referred to. They are, as a rule, dome-shaped, and their outline differs in this respect from fatty tumours,

FIG. 4.

which generally present a more flattened form, and are seldom met with in this region. This rough diagram (Fig. 5) is introduced to show the comparative appearance, on section, between a sebaceous cyst and a fatty tumour.

FIG. 5.

Cystic tumours are usually subcutaneous. Occasionally, however, as in the frontal region, they are submuscular, or subaponeurotic. Sometimes they are met with in connexion with the mouth, or even with the cavity of the nose, as in a remarkable instance reported by Mr. Mungo Park,[8] in which the tumour, being so situated, displaced the nasal bones considerably. Their contents vary in character; thus they may either be of cheesy consistence, being principally composed of cholesterine, fat, and epithelial scales, or they may be of a more fluid nature.

Hydatid cysts are occasionally met with on the lips and eyelids, and the dermoid cysts are generally situated in the region of the eyebrow, and often contain hair, as in this example (specimen shown), which I removed from a patient aged twenty-two. I am indebted to Mr. Wagstaffe for enabling me to show two drawings which illustrate the mode of origin of such cysts.

The best mode, in my opinion, of removing cystic tumours is to transfix them, by which a free opening is at the same time made into the cyst cavity. After the contents of the sac have been squeezed out, the cyst itself becomes more evident, and is easily dissected from the surrounding parts, without much hæmorrhage, provided care be taken to keep the knife close to the sac.

The removal of cysts situated in the region of the brow is often attended with troublesome hæmorrhage which hampers the operator. It is well, under such circumstances, to suspend the operation for a few minutes until the bleeding has ceased. Fine silk stitches may be employed to bring the edges of the skin-wound together, or really good adhesive plaster is frequently all that is required. In children it is of special importance to bring the edges accurately together, in order to obviate a subsequent scar.

Blood-tumours, or hæmatomata, are occasionally seen on

[5] Medical Times and Gazette, Nov. 21st, 1868, p. 584.

[6] See Clinical Lectures by author on Ulcers, THE LANCET, Sept. 15th, 1877.

[7] See a paper, by the author, on Infecting Sores on the Lips: St. Thomas's Hospital Reports, 1873.

[8] THE LANCET, 1841-42, vol. i., p. 886.

the ears (Fig. 6), and are said to be frequently met with in insane and idiotic persons. In referring to such cysts, Dr.

FIG. 6.

Gudden observes that, inasmuch as he has noticed finger-marks, these tumours may often be traced to rough handling either by the patients or by others.

Clinical Lecture
ON THE
RELIEVABLE ASPECTS OF HEART DISEASE.

Delivered at Guy's Hospital,

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(Continued from page 5.)

NOW, all independent heart disease is hypertrophy and dilatation; and, as hypertrophy and dilatation are to a certain extent within reach of remedial means, it is worth our while to consider them carefully. Agree with me, if you please, that the true object of pathology—of clinical pathology—is to recognise and enable us to ponder upon those aspects of disease which are susceptible of relief.

"Hypertrophy" is morbid thickening of the walls of the heart, or, perhaps more properly, increase of the weight of the heart's muscle, which is not quite the same. "Dilatation" is morbid increase in the size of the cavity of the heart. You see that they are not opposites nor even alternatives of each other. In fact, you do usually meet them together. You will never see dilatation of the heart without hypertrophy of it—without, that is, increase of the weight of its muscle. But you get the heart's weight increased without increase of the size of the cavity—that is, hypertrophy without dilatation. Mind, however, if you please—and this is very important,—you must not conclude that hypertrophy of the heart exists as a sole and independent disease, like a pneumonia or an aneurism. I believe the assumption of this by authors is a partial view, and so much so as to be an erroneous view of the subject. I do not believe in spontaneous diseased overgrowth of the muscle of the heart, any more than I believe in spontaneous diseased overgrowth of the muscle of the biceps or of the gluteus maximus. Nature does not go maliciously out of the way to disease us; nor does she sit down like an old-fashioned pathologist, and say, "Let me see, here are cavity and walls. Then we shall have—(1) cavity wider with walls unchanged; (2) cavity wider with walls thicker; (3) cavity wider with walls thinner. And again we shall have—(1) walls thicker and cavity unchanged; (2) walls thicker and cavity wider; (3) walls thicker and cavity narrower." That is how the old-fashioned pathologist, sitting at his writing-desk, followed out the affair, his very pen and ink concurring in so complete and harmonious an arrangement. But that is not Nature's plan. I believe she is sorry when disease must occur, and only allows it after resistance. To make the heart too large and strong would be gratuitous mischief. But, in fact, there is no simple hypertrophy as a disease to be combated. For if you look further, you will find that all increase of the power of the heart is compelled by some resistance that must be overcome. When you are dealing with hypertrophy in which the cavity of the heart is not enlarged, *look to the state of the urine*, and you will probably find out the cause of the hypertrophy in a morbid state of the nutrition of the textures, as revealed by their breaking into excess of urea or uric acid or oxalates. The hypertrophy is a simple index of the resistance caused to impure blood in its flow from the heart, and to fix attention on it for treatment is at best like suggesting the tying of the weathercock towards the desirable wind. The relievable aspect is in the detection and cure of the cause of the resistance.

I will put the practically important degrees of the heart's widening and thickening in a new and simple way, which I believe truly corresponds with the facts of the matter as we meet them in our patients. First, note, if you please, that any approach to exact and scientific comparison of the size of the cavity of the heart with the thickness of its walls after death is invalidated by this circumstance at least—that the proportion of the cavity to the walls depends much on whether the heart has died in systole or in diastole; and we have no means of telling whether it died in the one or the other; so that the division of hypertrophy and dilatation on grounds of comparison of the size of cavity with thickness of walls after death is of no service or application during life or after death. It is not science, but pseudo-science. Its only function is to look well on paper, and to give examiners something definite to ask about in their examinations. But, in truth, you will find that when the heart is enlarged the effects of its enlargement on the patient's comfort and life will depend upon the proportionate size of its cavity, which proportion will fall under one of these three importantly distinct conditions—conditions which produce wholly different sets of symptoms, and which must, I think, be distinguished by every one who would have clear views of this subject. They are as follows:—An enlarged heart will either (1) have no increase of the size of its cavity; or (2) its cavity will be increased, yet capable of closure during systole; or (3) its cavity will be so widened that it cannot be closed during systole. Let us consider these several conditions.

1st. When a heart is larger than it should be, but its cavity is of natural size, its possessor is in certain dangers in consequence of this condition, but *he does not feel those dangers, and his enlarged heart yields no symptoms.* This state is almost peculiar to Bright's granular kidney, and I accept it as the chief cause of the fact that seventy-five per cent. of the cerebral apoplexies with effusion of blood from bursting of the vessels, which came under my observation, were due to granular kidney. The heart's increased power is exerted in the vessels instead of being diffused on hydrostatic principles over an enlarged interior, as is the case when the cavity is widened. But the heart may reach twenty ounces in weight, and yet if its cavity is not enlarged it may give no sign at all, as we have proved on several occasions in cases where, knowing the presence of granular kidneys in persons with apoplexy, we have examined for evidences of cardiac hypertrophy and found none at all, whereas the post-mortem directly after showed hearts weighing from seventeen to twenty ounces. So much for the first condition. This is *simple hypertrophy.*

2nd. When a heart is larger than it should be, and the cavity is larger than it should be, but still capable of closure in systole, then its possessor has a distinct set of symptoms, which are those ascribed usually to "hypertrophy" in the books. Now you will generally find the symptoms of hypertrophy given in books at greater length than those of dilatation, in the proportion of about twenty pages of the one to ten pages of the other. But although the heart, in the condition I am insisting upon, distresses its possessor by the efficiency of its power and action, yet such patients do not come before you as grave heart cases. Only

exceptional organisms suffer from this condition. Very irritable systems will reveal ill effects from the change, which is calculated to produce excess and variability of vital activities. Thus, Niemeyer, following Frey, traces out the effects of a condition of the heart in which excess of blood is thrown into the arteries from the ventricle. He assumes that the excess thus in the arteries goes with a corresponding deficiency in other parts of the vascular system; so that the veins are emptier than usual, and the blood runs along quickly in them through the plenty of room it finds there, whilst it goes along quickly in the arteries through the great pressure the large and efficient heart puts upon it. Thus, the whole round of the circulation is free and rapid, and vital activity is encouraged, and the symptoms of hypertrophy sanctioned by the class-books—say, as the best, Dr. Walshe's—are verified more or less along the whole list, which goes from "*a*" to "*m*" inclusive, and which sums up into floridness, bright eyes, some breathlessness on exertion, and tendency to headache. Frey's explanation is ingenious and probably right, but I think such an explanation as this could apply only to temporary over-action of the heart in such cases; for the unfilled veins, supposed in Frey's theory, would soon be filled, on account of the increased absorption which is induced by any deficiency of blood within the veins; and thus plethora and sluggishness would be reached in a day, or even in a few hours, whereas the "hypertrophy" of the heart lasts for years. I think the explanation Frey gives is a good explanation if its application be restricted to the temporary exacerbations of distress in cases of this kind, that is of hearts which have enlargement of cavity capable of complete closure in systole; but it does not apply to any very protracted and constant kind of cardiac distress, rather only to distress during exertion or in fits of palpitation. The heart in this condition gives trouble, but does not make an invalid of its possessor. We meet with it to a certain extent in football players, and in athletes generally, so take care. Such cases often come before us in life assurance practice, and raise a doubt, not easy perhaps to solve, yet often fairly to be viewed favourably to the applicant. It is to these cases Dr. Hope probably referred when he said "nearly all cases of simple hypertrophy in young men recover before forty."

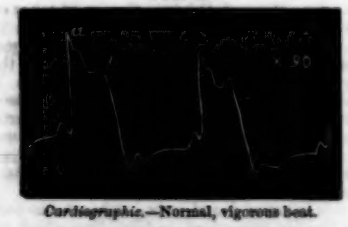
What I ask you to believe in reference to these cases is, that they indicate a condition in which the cavity of the heart is larger than natural, but its walls so relatively strong that they can completely close the cavity, so that a large amount of blood is thrown into the vessels. In short, the hypertrophy of authors is more properly a state of *dilatation capable of complete systole*. But whilst a larger quantity of blood can be thrown into the vessels than is natural, it is only under excitement that the systole is thus completed. So that in periods of rest and relative depression of the heart's action, the amount of blood thrown into the vessels is about the natural quantity, and then no noticeable disturbance is occasioned. Hence the symptoms produced in these cases are variable, through times of excess and times of deficiency in the heart's action—excess causing the usually recognised and sanctioned symptoms of hypertrophy; these symptoms, however, not being constant in any patient, but alternating with periods of quiescence and depression, which periods of quiescence and depression I have never seen noticed in descriptions of the symptoms of hypertrophy by authors on heart disease. Yet they are always present if one follows the history of any case. Now, in its periods of depression the heart does not close its widened cavities, but the distresses due to a greater degree of dilatation are not reached, because the power of the thickened heart-walls is equal to the increased labour laid upon the heart by the increased size of its cavity.

This condition of *dilatation capable of systole*, which I believe is truly the cause of the symptoms usually ascribed to simple hypertrophy, and to which Frey's explanation well applies under the restrictions just stated, is quite distinct from the simple hypertrophy of Bright's disease, which I have already described. But it is to be noticed that in some cases of Bright's disease the resistance in the vessels leads to an inability of emptying the cavities, so that the "hypertrophy" of Dr. Walshe—the second condition I am describing—is set up, and we reach thus the symptoms of dilatation capable of systole, which, when present along with albuminuria in Bright's disease, are of very evil prognosis.

3rd. On the other hand, the condition of dilatation capable of systole easily passes into the condition of dilatation incapable of systole—that is, into the condition generally recognised as "dilatation of the heart." And I shall presently draw your attention to the suddenness with which this unfortunate change is effected in many cases. A dilatation permanently incapable of systole produces cardiac cachexia and dropsy, and is the direct cause of cardiac cachexia and dropsy in all cases of these conditions. We may continue to call dilatation capable of systole by the name of "hypertrophy," and dilatation incapable of systole by the name of "dilatation." But hypertrophy and dilatation are present in both, just as whilst we call certain colours by the names yellow and red respectively, there are red and yellow in both, much yellow in bright-red, and much red in strong yellow.

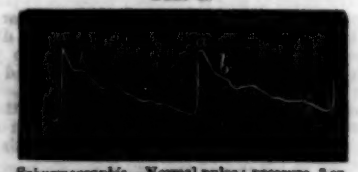
The cardiographic tracing writes down in a very interesting manner the distinction between hypertrophy and dilatation. I am indebted to Dr. Galabin for the opportunity of showing you tracings which he has taken with his ingenious and well-known cardiograph.

FIG. 1.



Cardiographic.—Normal, vigorous beat.

FIG. 2.



Sphygmographic.—Normal pulse; pressure, 3 oz.

FIG. 3.

Cardiographic.—Hypertrophy; aortic obstruction.

FIG. 4.

Sphygmographic.—Hypertrophy; granular kidney; pressure, 6 oz.

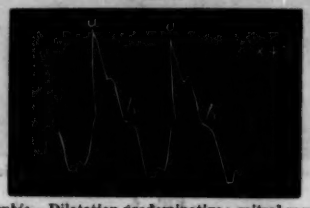
The demonstration is increased by the evidence from the sphygmograph. Now the cardiograph shows in the systole of the heart a double movement, one item of movement succeeding the other very quickly, so that the elevation in the tracing caused by the heart's systole (*a*, *b*) is thus made to have a double summit. The first elevation is caused by that act of the heart's beat in which the muscular wall of the heart, previously flabby, gathers itself suddenly into stiff pressure around the mass of the blood. This act raises the chest-wall (*a*), and immediately, the pressure continuing,

the blood is forced into the aorta, and stiffens it, so that the aorta resists, and the heart "kicks" back, raising a second time (*b*) the chest wall. The first is usually a sharper act, but more feeble; the second is a stronger, but less sudden, act.

Now in a hypertrophied heart, which, as I said, is a large dilated heart, whose cavity is capable of closure in systole, the chief movement of the beat is the forcible closure of the large cavity, and driving out of too great a volume of blood, under resistance, but efficiently, so that the stream up the aorta is larger, and the kick of the heart is stronger and more free than in health. Hence the second item (*b*, Fig. 3) of the heart's systolic impulse comes out strongly, whilst the first is less prominent—varying, however, somewhat according to the suddenness of the beat. Also the pulse-trace shows an excess of the part of the movement which is due to the onward wave of blood—the "tidal wave" (*b*, Fig. 4). These two facts of the heart- and pulse-traces show well the nature of the dangers hypertrophy brings with it. It threatens to burst the vessels, and it does so sometimes, especially when, through Bright's disease or other cause, the resistance in the vessels is increased. And even if it does not break the vessels, it is apt to distend and engorge them where they are least firmly supported, as in the brain, causing various unpleasant sensations in the head, as well as congestion of the bronchial tubes, whose spongy mucous membrane is unprovided with any superficial controlling muscular layer such as you know is present on the surface of the skin and of the intestinal mucous membrane. Such engorgement of the bronchial tubes gives rise to shortness of breath and liability to bronchitis.

But all this is never found in bed as heart disease. Heart disease, as usually recognised, is dilatation which cannot be closed. The effect of this is precisely opposite to that of the hypertrophy we have been considering. All valvular disease, when it lays the patient up, does so by causing dilatation which cannot be closed. I need not point out to you that dilatation puts the heart at a quickly increasing and speedily enormous disadvantage, distributing the heart's power over a larger area, and so reducing the proportion of the heart's force exerted on the arteries, and when dilatation is great, reducing it to such an extent that notwithstanding a very large increase of the heart's size and muscular strength, the pulse resulting from its beat is very feeble and perhaps indistinguishable. Now, when the systole is thus rendered inefficient in the driving out of the blood whilst the heart is large, wide, and muscular, you will easily see that the "kick" of the heart will be feeble, so that the elevation (*b*, Fig. 5) will be little marked, whereas the elevation

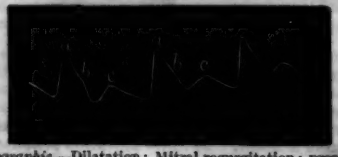
FIG. 5.



Cardiographic.—Dilatation predominative; mitral regurgitation of less than five weeks' standing.

caused by the rounding of the heart (*a*, Fig. 5) will be very high; for the wider heart suddenly becoming tense and round rises more prominently, and the feeble jerk of its sudden tension gives a sharp unsustained flap. As, however, little blood is forced out, there is but a small tidal wave and a small recoil or "kick" of the heart (*b*, Fig. 5).

FIG. 6.



Sphygmographic.—Dilatation; Mitral regurgitation; pressure 1 oz.

Also in the pulse-tracing you get corresponding evidence. There is a sharp feeble percussion-wave (*a*, Fig. 6), but scarcely any or no tidal wave (*b*, Fig. 6), whilst the dicrotic wave (*c*, Fig. 6) is well marked, on account of the emptiness of the artery. The blood, in fact, becomes deficient in the arteries and accumulates in the veins, so that you get a reversal of all those conditions of arterial excess which Frey traced to hypertrophy, and now Dr. Walshe's symptoms of dilatation, as given in his list from *a* to *m* inclusive, come in and characterise the case chiefly with dropsy, orthopnœa, lividity, fluttering palpitation, irregular pulse, and scanty loaded urine.

When once your patient has reached such symptoms as those, you have but little chance of seeing his life prolonged over eighteen months. Dr. Walshe says this, and it is doubtless true as the rule; but I have a patient at present under my care who was under Dr. Fagge's care in 1870, in this hospital, for general cardiac dropsy, and she has no dropsy now; and I have recently seen two cases, in one of which death occurred at the end of three years' cardiac dropsy, whilst the other is living, four years and a half after it set in; in neither of these did the dropsy ever entirely leave the patient.

(To be concluded.)

PHOSPHATIC DEPOSITS FORMED IN THE BLADDER: CYSTS; PHOSPHATIC CONCRETIONS.

BY SIR HENRY THOMPSON, F.R.C.S.,
SURGEON-EXTRAORDINARY TO H.M. THE KING OF THE BELGIANS, CONSULTING SURGEON TO UNIVERSITY COLLEGE HOSPITAL, AND EMERITUS PROFESSOR OF CLINICAL SURGERY.

DEPOSITS of "phosphatic matter"—that is, of salts of lime and phosphoric acid, of magnesia and ammonia and phosphoric acid, but in various forms and degrees of mechanical admixture—frequently appear in the urinary passages, especially of elderly men, and often occasion serious and long-existing trouble.

In the large majority of instances phosphatic salts are produced in the bladder itself; in a few they descend from the kidney, as in the simple deposit of amorphous earthy phosphates, at any age, in urine which is secreted of alkaline reaction. Occasionally, also, a small phosphatic calculus is formed in the kidney, but this is by no means a common occurrence. Even then there is generally a uric-acid nucleus, although it may be minute; for I think there is reason to believe that when the phosphatic salt occurs in the form of renal calculus, it is rarely a primary deposit, but results from irritation of the mucous membrane there, somewhat as it does in the bladder under similar circumstances.

My object is to treat only of those deposits of phosphatic calculous matter which have their origin in the bladder, and which therefore, to save circumlocution, may be distinguished briefly as "cysto-phosphatic." They play a very important part in the history of stone in the bladder; and though no absolute line of demarcation can be drawn between the class of cysto-phosphatic deposits and the class of fully developed phosphatic calculi—a large example of the former being equivalent in most particulars to a small example of the latter,—it is highly desirable on many accounts to recognise that there is a distinction between them. It is partly, then, with a view of calling attention to this distinction, and of emphasising it when made manifest, that I propose this term to designate the class in question.

Among elderly men who are compelled to pass much of their urine, or all of it, by catheter, and occasionally when this condition does not exist, the bladder often becomes the seat of phosphatic precipitates. These may be passed as greyish-white granular particles, or in little masses, or they may be retained and form "concretions" of the size of a pea or larger, in any case producing more or less painful and frequent micturition. The issue of such a case, if unrelieved, is never doubtful; a phosphatic calculus is certain to be formed, and, if not removed, becomes large. Indeed, no calculous product is deposited so rapidly as this; consequently there is none which attains so great a size if its progress be not checked. The well-known mass in the

museum of the Royal College of Surgeons, No. H 2,[1] is a striking illustration, among many others, of this fact.

But these deposits should be removed when first formed by washing out the bladder, or, if this is not successful, by the flat-bladed lithotrite. Nothing is easier, more simple, or more safe in execution than the accomplishment of this in their early stage; the prevention or cure of the diseased action which produces them is another subject, to be presently considered. At any rate, they should be mechanically removed before they have any claim to be considered as "stone," which they will certainly become if they are let alone. In every case in which such removal is accomplished we have the satisfaction of knowing that the production of a stone has been avoided. And were the lithotrite capable of doing nothing more than rid the bladder of these deposits, it would still hold a high rank among the resources of surgical art.

I know it may be said, If such deposits cannot be removed by washing out the bladder, but require the aid of the lithotrite, and, moreover, must inevitably lead, if unchecked, to the formation of stone, why should they not be nosologically regarded as examples of "stone in the bladder"? I reply that, in order to preserve a clear understanding of the terms used among surgeons, a somewhat more defined meaning to the term "stone" has become necessary, especially since the introduction of lithotrity. For instance, every example of calculous material which requires the operation of lithotomy for its removal may be permitted, without question, to rank as "stone"; but it ought to be equally clear that every example of calculous material for which a lithotrite should be employed cannot therefore necessarily be admitted to the same category. Thus, the calculous material may be composed of loosely cohering crystals, like a small fragment of frozen snow, or may have merely a consistence like that of mortar, and yet may resist the mechanical effect of a current of water or of a chemical solution to remove it. In such circumstances the lithotrite is the best agent in dealing with these formations, although their physical qualities are not such as to make "stone" a fitting or descriptive title. It would be better to apply to the deposit in either of these two forms, the word "concretion"; and the designation "cysto-phosphatic" will indicate clearly their origin and nature. The term "cysto-phosphatic concretion" will thus exclude, on the one hand, the ordinary "gravel" of uric acid and oxalate of lime and the few phosphatic calculi which descend from the kidney, and, on the other hand, all hard "stones," whether urate, oxalate, phosphate, or mixed, which commence as gravel, and have been more or less augmented in size by accretion in the bladder. It will therefore comprise all salts of phosphoric acid with earthy and volatile bases formed within the bladder, and deposited as a more or less loosely-cohering precipitate, but not in the form and size, or with the hardness, of "stone."

Of course, then, the simple proceeding involved in the removal by the lithotrite of cysto-phosphatic concretions is not to be regarded as an operation for crushing the stone. I have certainly removed them some scores of times, for patients in the conditions described, but have never reckoned them as cases of lithotrity. To do so would be to magnify their importance, to the great prejudice of truth in surgical records and in relation to other matters not less important.

I may remark here that the formation of concretions occurs sometimes as a sequence to lithotrity, especially if much and long-continued inflammation has followed the operation, and they may and do occur after the same action, when there has been no lithotrity. They are often mistaken for fragments left behind by the surgeon after the last-named operation, or for the "re-formation" of the stone. Their occurrence quite as frequently after the removal of the uric-acid stone as after a phosphatic one disproves, in many cases, this view, which may be called the popular one. But they are really the results of inflammatory action, and there is not a little interest attaching to the pathological history of some of them, as I think will appear.

I propose to consider this in the following paper.

[1] This enormous calculus filled a distended bladder, which had been paralysed by injury to the spine. It weighed forty-four ounces (troy), and has a mean circumference of fifteen inches.

THE Belfast Royal Hospital has recently received a donation of £1000 from a Mr. Craig, of London, on coming of age, which the donor wishes to be devoted to the Convalescent Home attached to the hospital.

A NEW TREATMENT FOR DILATING, OR RENDERING PERVIOUS, THE EUSTACHIAN TUBE, AND FOR VENTILATING THE TYMPANIC CAVITY.

BY DR. J. GRUBER.

THE chief difficulty in catheterising the Eustachian tube (an important operation, which I here declare will *never* fall into disuse) is well known to arise from an impervious state of the nasal fossa of that side. The muscles of the nose and the septum nasi, which contribute chiefly to form the nasal passage, are so different in size, form, and situation, they affect the opening in the nose in so many ways, and so interfere with catheterisation, that besides delicate sensibility in the fingers, which especially is essential in a good operator, great practice and experience are required before one can properly use this operative measure. It is not easy to acquire such handiness; and the aversion of patients to this instrumental treatment increases with the thought that deep and invisible parts in the neighbourhood of the brain will be operated on, the result of which is that very few medical men yet understand how to use the catheter. Further, we have to consider that there are patients whose courage fails them at the thought of permitting the instrument to be used, and there are cases where the passage of the catheter through the nasal fossa is hindered by congenital or acquired deformity, or is rendered impracticable and unadvisable on other grounds. Hence the patient and physician endeavour to carry out the indicated treatment without having recourse to these means. One of the chief ends we try to attain by the introduction of the catheter is the passage of air through the Eustachian tube into the middle ear, a method of treatment lately made known under the name of air-douche, and notoriously more frequently employed than any other in the treatment of ear diseases.

Even for using the air-douche it was desirable to learn the use of the Eustachian catheter, though the same, or almost the same, end might be attained without the actual passage of the tube.

The method of accomplishing this end employed of late years is that first described by A. Politzer, which consists, as is well known, of the following steps. The patient takes a little water in his mouth, the surgeon passes the nozzle of the specially-made instrument about one centimetre within the nasal opening, which is firmly closed upon the instrument with the thumb and forefinger of the left hand; then, while the water is being swallowed (at a signal from the surgeon), the elastic ball attached to the nozzle in the nasal opening is suddenly emptied by pressure with the right hand of the surgeon.

The generally-received opinion is that at the exact moment of swallowing, when, through the contraction of the middle of the pharynx, the upper part is separated from the lower, at that moment the Eustachian tube is opened, and, the air being compressed in the nasal part of the pharynx, and not being able to escape by any other passage, is forced through the tube into the cavity of the middle ear on each side.

Notwithstanding the important contribution to therapeutics which this mode of treatment was, it had many drawbacks, to which we will return when we have depicted the new method. Later, Lucae,[1] basing his propositions on observations on the function of the soft palate and of the Eustachian tube, made by him while carefully watching the parts when in action, in a patient suffering from great destruction of the nose, recommended that, in order to convey air into the tympanic cavity, the nozzle of the Politzer bag being passed as usual into the nasal opening, the patient should be directed to sound the vowel "a" while the air-ball was suddenly emptied. The soft palate is stretched while the vowel "a" is sounded and the upper pharynx is closed, and air can be made to pass through the tube in the tympanic cavity, as in the Politzer procedure.

I intend to refer to the method of so renowned an author in another place, and will here only briefly mention that I

[1] Virchow's Archiv, Band lxiv.

can myself testify to the fact that it succeeds, in many cases, in accomplishing the desired end, and that, as the author himself has stated, the manœuvre may be made useful in the treatment of little children. It is to be remembered, however, that in the case of these latter, simply emptying the Politzer ball will introduce air into the middle ear.

In treating adults, especially when, as happens in very many cases, we have to overcome a marked obstruction in the tube, this method of Lucae will probably not succeed. We have generally to deal with cases of morbid change in the tube, and in such the slightest stretching of the soft palate produced by the phonation of the vowel "a" will be easily overcome by the pressure of the air, which will escape downwards without having reached the tympanic cavity.

For the air to press into the tube with the necessary elasticity, it is quite indispensable that the closure of the upper pharyngeal cavity should be capable of making firm resistance, which may be easily produced by swallowing or analogous movement; but as I found many drawbacks in the use of the swallowing movement, as employed by Politzer, I devised a substitute, which I believe to better for our purpose.

I will now proceed to a description of the process itself.

As has been already said, in order to obtain an effective separation between the upper and lower parts of the pharynx, the muscles of the soft palate must be brought into play at the same moment that the Eustachian tube is opened. All this is obtained by the simple pressure of the root of the tongue upon the hinder part of the palate, if a strong expiration is made at the same moment. If one presses the posterior part of the tongue against the palate, the cavity of the mouth is shut off from the throat, and the soft palate is pressed upwards and backwards. The air, which passes in expiration into the throat, has no escape either through the mouth or through the nose, of which fact one can easily convince oneself by holding the hand, or a small flame, in front of the nose. The latter is not moved, and the hand is not conscious of the least breeze during the expiration, as would be the case did the air escape from the nose. The stronger the expiration at this moment, the more tense will be the soft palate by the pressure of the escaping air, and the more effective the closure of the upper pharynx. This moment, as regards the arrangement of the pharyngeal parts, is the most favourable for giving the maximum degree of pressure to the pent-up air, by emptying the Politzer ball into the nose by the nozzle introduced as usual.

Had we always quite docile patients before us, we should certainly make use of this method; as this is not the case, we must be content with such movements as come nearest to that above described. The result of the investigations which I have made in my own mouth, and in those of patients, is that we obtain the result when the consonants "h," "k," "k," are sounded together in the most sudden manner. In such a mode of operation, much depends upon the patient's powers of comprehension, and it is often easier for the surgeon to direct the patient to repeat some complete syllable, as it will demand less explanation to make them use a vowel between the consonants, as "hack," "heck," "hick," "hock," "huck." Let anyone utter the indicated syllables in succession, as they are written down, and he will find that the tongue is pushed further backwards, and more firmly upwards, the further we proceed in the succession of syllables, so that with the syllable "hack," the tongue is placed most forward, and with the syllable "huck" is pushed back to the furthest degree, and against the parts above; and in this way the upper pharynx is narrowed, and effectually closed. The backward and upward pressure is stronger, and the closure more effectual when the combination of consonants "hck" is uttered without the vowel. We have also in the scale of words a means of measuring, a kind of gauge of, the closure of the upper pharynx, which is most useful, as will be seen. As the learned reader has already observed, the syllables are always written "ck," which I will explain by saying that the strong final sound falls upon "k." In proportion as the patient exerts himself to strengthen the sound of this final "k," so will it be possible to perfectly close the upper pharynx. Let us now try to utter one of these syllables, and we shall observe peculiar changes or effects in the ear; each time we find a motion in the tympanum, and not unfrequently a noise similar to that experienced in the Valsalva experiment; and the experimenter must thus cause the air to pass through the tube into the tympanic cavity.

The treatment which I now, supported by the facts given above, recommend for cases alluded to in the preliminary remarks is as follows:—The operator stands or sits, as is most convenient for him, in front of the patient, and the end of the nozzle of the syringe (the ball of which is held in one of the operator's hands) is passed to the depth of one-third of an inch into the nasal opening. The operator then, with the thumb and first finger of the other hand, closes the opening around the syringe nozzle most carefully, and, while the patient utters one of the prescribed syllables ("hack," "heck," "hick," "hock," "huck," "hck"), the ball is compressed, and the air flows with a clearly perceptible noise through the tubes into the tympanic cavity.

(For this, my treatment, I use an instrument which differs from Leiter's in that the nozzle is solid and is screwed into the ball; in Leiter's syringe there is a piece of elastic tube between the ball and the nozzle, which I find very disadvantageous, as the ball is not so easily handled, and the nozzle cannot be kept so firmly introduced.)

The sound which is produced when the air enters through the tubes can be heard distinctly enough with the aid of the otescope. If the tympanum is perforated the characteristic perforation sound can be heard; the patient has a clear sensation of the passage of air into the middle ear; the tympanum shows, on inspection, the well-known phenomena; and, in short, there are all the signs of entrance of air having taken place, if the tube of that side be not impermeable, in which case any injection of air would be impracticable. If I allow the patient to incline his head strongly towards one shoulder during this treatment, it is always successful, especially if I pass the nozzle into the nostril which corresponds to the ear into which I wish to inject the air. In those cases in which the air came into the ear of the other side as well, it almost always happened that the patient could feel the passage of air more strongly in the upturned ear. If the patient, treated in this way, once perceived certainly that the air entered the ear, he had the same perception if I repeated it several times one after the other, or on different days.

Whether this posture causes the muscles of one side to act more energetically, or whether the compressed air takes the upward direction more easily, or whether air expired in this position has a stronger draught along this side of the palate, and so leads along the compressed air in its course to the nose, I cannot explain.

I should like to have made these last observations with all reserve, while I indicate of what inestimable value would be the discovery of any manipulation which would enable us to send air through one tube merely.

To sum up the advantages of my method over that of Politzer:—

1. It is more simple. The swallowing movement being abolished, the sipping of water is no longer necessary. One needs to learn the objection patients feel to this water drinking in order to estimate the boon it would be no longer to need it. Although I have used this method of treatment much less frequently than others, still there always stood on my table a great number of glasses ready, and it often cost a patient a great effort of will to take a sip out of my glasses. How can you blame him when you remember that one's consulting-room is at all times receiving patients suffering from contagious diseases?

It is easily understood that when the treatment is needed frequently the swallowing of so much water is not only troublesome but hurtful. If it is replied that the patient could make the swallowing movement without water, I would reply that then the introduction of air through the tube often fails; and, on the other hand, that the frequent empty swallowings are more painful than when water is used. I will not mention cases in which diseases of the neck render deglutition difficult further than to say that, while attempting to swallow, air passes into the stomach, and causes severe pain, until several eructations have relieved the organ of the injected air.

2. Is one able to keep the pharyngeal parts in the position assumed in uttering the prescribed syllable, especially the "k," then the air can for a longer time be made to enter the tubes than could be the case with the brief act of swallowing, which cannot possibly be prolonged, and I hope it will some day be possible to direct medicaments into the tube in this manner.

3. By using the above list of syllables carefully the air may be made to enter the tubes with varying degrees of force, which advantage will appear more clear when it is

mentioned that the suddenness of the action in the Politzer method has often led to tympanic rupture.

4. My method is especially adapted for self-treatment, because the patient learns by his own sensations to increase the force with which the current is sent into the ears.

Permit me now to leave my method in the hands of my honoured fellow physicians, and to hope that they will soon communicate the results of their experience with it.

Vienna.

MORBUS ADDISONI.

By ROBERT MUNRO, M.A., M.D.

SINCE Dr. Addison's original discovery, that a peculiar bronzed appearance of the skin, together with certain characteristic symptoms, such as progressive weakness, feeble pulse, irritability of the stomach, &c., was to be found in conjunction with various forms of disease of the suprarenal capsules, little progress has been made in extending our knowledge of the causes of this group of morbid phenomena. Indeed, considering the diversity of the pathological facts recorded in supposed cases of Addison's disease, and the absence of any positive information with regard to the function of the suprarenal capsules, we need not be astonished that the exact relationship between bronzing of the skin and disease of these organs should still remain an open question. The common opinion that these bodies belong to the blood-vascular glands appears to me to have been founded more on analogy than on either anatomical or experimental observations. The richness of their nervous supply has, however, recently attracted attention, and led some physiologists to classify them with the sympathetic system. Kölliker, on the other hand, considers the cortical portion as part of the former, and the medullary portion as part of the latter; thus assigning to them both a blood-formative and a neurotic function. The fact that cases occasionally turn up presenting bronzing of the skin that cannot while living be distinguished from Addison's disease, and yet upon post-mortem examination exhibit no trace of morbid lesion of the suprarenal capsules, is alone sufficient to point to some other cause than the mere diseased conditions of these organs. I believe, therefore, that the primary cause of Addison's disease must be looked for in a functional disturbance of the whole nervous system, and that the undoubted close relationship of the lesion in the capsules is as yet undemonstrable. In these circumstances, notwithstanding the large number of cases of this disease already published, we must still go on recording pathological observations; and I venture to bring the two following cases, which have recently come under my notice, before the profession, believing them to present some points of interest. The notes of the second case have been sent to me by Dr. Wyllie of Stewarton, under whose charge the case had been, and is of importance in showing that pregnancy took place subsequent to the neurosis.

CASE 1.—W. R——, a young man, unmarried, and a skinner by trade, suffered for some years before he came under my care from disease of the liver and heart, for which he was treated by my predecessor, Dr. Aitken. I saw him for the first time in the latter part of 1869, and upon examination found the liver slightly enlarged, the heart hypertrophied, with valvular disease, and a somewhat sallow complexion. As the action of the heart was strong, I prescribed digitalis with a solution of taraxacum. I saw him occasionally for a few years afterwards at my consulting-rooms, but remarked nothing further in his case. He was able to follow his occupation pretty regularly, and appeared to be improving. After this I lost sight of him for about two years, till the latter end of 1875, when he complained of great weakness. I then noticed that his skin was bronzed. Judging from the physical examination, the heart disease did not appear to be worse, and there were no secondary symptoms due to it, nor was there any increase upon the former size of the liver. During the rest of his life (about six months) the discolouration became gradually deeper, till shortly before his death his hands were as dark as those of a negro, and some portions of his body, especially the region of the pubes and a circle round the nipples, were actually black. On account of the peculiarity of the case, I asked Dr. Borland to see him with me, when of course Addison's disease was the chief topic of conversation. Both agreed that a post-mortem examination would be desirable, as the only means of settling the question as to the existence of disease in the suprarenal capsules. He died about a fortnight afterwards, at the age of thirty years, and after much entreaty, we were allowed to make a slight inspection of the body. We removed only the kidneys and suprarenal capsules. The right capsule was so soft and pulpy that it actually disappeared through my fingers in the act of removing it, and there remained only three or four irregular masses of a putty-like substance, and of the consistence of soft clay, but varying in size from a pea to a field bean. With greater care I removed the left capsule whole. It was larger than the normal condition, and contained hard tubercular nodules, which here and there appeared to be breaking up into a pus-like fluid.

CASE 2.—"Mrs. P——, a farmer's wife, aged thirty-four years, consulted me about the beginning of March, 1877, about a discolouration of her skin, which both herself and friends had noticed coming on gradually for the last twelve or fourteen months. She complained of general weakness, palpitation, loss of appetite, irritability of the stomach, and vomiting. On making further inquiries, I ascertained that she had previously been a very healthy, well-coloured woman, and had had no illness that she could remember, except a slight attack of rheumatic fever six years ago. She had a family of three stout healthy boys, and was again four months advanced in pregnancy. Both her parents were alive and healthy. Her greatest complaint was the excessive vomiting, to relieve which I ordered a diet of milk and lime-water, with beef-tea and a little brandy. This was retained on her stomach, and for several months formed almost exclusively her daily nourishment. During this time her chief complaint was weakness. She managed to rise and sit in a chair half the day, but felt unable and disinclined for any exertion. On the evening of June 1st I was sent for hurriedly, and on arriving found she had had a convulsion, with foaming at the mouth and twitching of the limbs and face. She remained unconscious for about six hours, with slow breathing and laboured pulse. The heart was feeble and weak—beating, however, at the rate of 120. For a day or two she continued drowsy and listless, would ask for nothing, and only reply "Yes" or "No" when repeatedly asked a question. After this attack she rallied considerably, and was able to drive out with her husband, but complained of noise in her ears, dimness of sight, and faintness. On the 16th of July I was again sent for, and found her in labour; pains frequent, but weak. The head was presenting well down in the pelvis, and as she was faintish, and fearing delay might be dangerous, I delivered her with instruments. The child, though apparently healthy and well nourished, only survived about twenty minutes. The patient progressed favourably, her appetite improved, the sickness abated, and even the skin seemed better coloured; so that by the end of the third week she was able to walk about the house. Four weeks after her confinement (August 6th) she went to the dairy, and on returning was seized with a fit of shivering, which proved to be the commencement of an attack of rheumatic fever. On the second day the temperature was 103·3°; pulse 130, weak, and compressible; and the pains exceedingly acute. I put her on ten-grain doses of salicylic acid every four hours for one day, and afterwards three times daily, with the effect that on the fourth day the temperature fell to 98° and the pains almost entirely disappeared. Shortly after this I noticed that the discolouration of her skin had become much deeper and of a smoky tint, approaching to blackness, over the region of the pubes and areolæ. The gums were tender and discoloured; tongue thick and dry, with a brown stripe on each side; temperature 97·8°; urine scanty, but clear and deficient in solid constituents, with a specific gravity of 1020. About this time I had a consultation with Dr. Munro, who entirely agreed with the treatment and my suspicion of Addison's disease. From this time she gradually became weaker, and lingered on for about a fortnight, being much troubled with hiccough and pains in her hands and feet. Her stomach would retain nothing; and the slightest exertion, even raising her head from the pillow, brought on faintish turns. The skin continued soft, and was occasionally covered with a cold, clammy sweat. Temperature 97·6°. She continued conscious till within two hours of her death, when low muttering delirium set in,

which ended in coma and death on Aug. 25th. Dr. Munro and I were fortunate in getting permission to make a post-mortem examination. The bronzing of the skin was less distinct than during life. The kidneys, liver, spleen, heart, and other organs appeared healthy. The left suprarenal capsule was much larger than the right, and in cutting through it about a teaspoonful of a yellowish pus-like fluid escaped. The normal structure of both was converted into hardened cheesy nodules, which here and there grated under the knife."

Kilmarnock, N.B.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

KING'S COLLEGE HOSPITAL.

UNUNITED FRACTURE OF THE HUMERUS IN AN OLD MAN, SUCCESSFULLY TREATED BY RESECTION OF THE ENDS OF THE BONE AND THE APPLICATION OF SILVER SUTURES.

(Under the care of Mr. HENRY SMITH.)

THE value of resecting the ends of the bones in ununited fracture was very well illustrated in the following case. The patient was an old man in feeble health, and therefore not a good subject for any serious operative interference; but, on the other hand, with an ununited fracture of the humerus he was unable to follow his employment of hairdresser. It was this last consideration that chiefly influenced Mr. Smith in deciding to attempt reunion. The case was not immediately successful, but it is not less interesting on that account, as it shows the importance of the element of time in such cases. When the patient was discharged from the hospital, four months after the operation, there was no sign of osseous union, although the ends of the fragments had been kept immovable and in close apposition by means of silver sutures and a splint. Two months later some callus could be felt; and one month later still, or seven months after the operation, there was firm bony union.

Michel N——, aged sixty-one, a hairdresser, was admitted under the care of the late Sir William Fergusson on March 6th, 1876, with a fracture of the middle third of the left humerus, and a Colles' fracture on the same side, which he had sustained by falling down stairs.

He was discharged on March 23rd, with the Colles' fracture united, but the humerus still ununited.

He remained in St. Giles's Workhouse till Jan. 15th, 1877, when he was admitted into the hospital under Mr. Henry Smith. The fracture at the junction of the upper and middle third of the humerus was still ununited. He was in a very feeble condition of health altogether, and looked like a man who had been badly nourished. The arm was placed in splints, and, as on March 17th no union had taken place, Mr. Smith performed the following operation. A longitudinal incision of two inches was made down to the bone over the seat of fracture; the broken ends were then cleared, and the fibrous tissue about the ends removed; the broken ends were then sawn off, and a silver wire passed through each end and twisted up, thus bringing the cut surfaces into apposition. The arm was put up on an angular inside splint.

On June 26th the fracture was still ununited, and it was in the same condition on July 10th, when he was discharged with the wires left in.

On Sept. 25th he was readmitted. The wires were still in, and some callus could be felt around them. On Oct. 4th, on removing the splint, union was found to have taken place. On Nov. 2nd the protruding ends of the wire were cut off, the remainder being left in; and the splint was reapplied. On Dec. 5th the splint was discontinued; the fracture was united, and the health was fairly good; there was a small depression in the skin at the site of operation.

ST. THOMAS'S HOSPITAL.

POPLITEAL ANEURISM RAPIDLY CURED BY FLEXION AND DIGITAL COMPRESSION.

(Under the care of Mr. CROFT.)

IN the following case two different modes of treatment were successively adopted—forcible flexion and digital compression. After twelve hours' flexion pulsation in the aneurism was decidedly less, but had by no means ceased. Cure was, however, completed by three hours of digital compression, although, as a precautionary measure, modified pressure was kept up for some hours longer.

Next week we shall publish the notes of a case of popliteal aneurism successfully treated by Mr. Croft by means of an interrupted elastic bandage.

W. V——, aged thirty-two years, unmarried, a cabdriver, was admitted on May 28th, 1875. He was a muscular, healthy-looking man, notwithstanding an eruption of psoriasis over both legs and parts of the trunk. In the left popliteal space there was an aneurismal tumour about the size of a large orange. It was oval in shape, with its long axis from above downwards. It projected at the inner and upper part of the space, and could be seen to pulsate, the walls being apparently thin there. The left knee above the patella measured fifteen inches and a half, or two inches and a half more than the right. At the middle of the patella it measured two inches and five-eighths more. The pulsation of the left anterior tibial artery could not be felt so distinctly as that of the right. Heart-sounds were normal. The right radial artery at the wrist was somewhat dilated at the situation of an old scar. He had not suffered from any severe illness. Twelve years before admission he contracted a chancre on the penis. This was followed by sore-throat and an eruption, and he had since been attacked by psoriasis at intervals. Five weeks before admission he was pulling a cart across a yard and fell sharply on both knees. A few days afterwards he experienced some pricking pains in the left ham. Ten days before admission he found he could not straighten the leg. The pain became suddenly worse whilst walking, and next day he observed a swelling in the ham, and the swelling and pain increased daily. He stated that his father died of dropsy, but he did not know whether there was heart disease. His mother, four brothers, and three sisters were all alive and well.

On admission he was placed on milk diet. The leg was bandaged from the toes to the tumour; the knee was well flexed on the thigh, and a bag of ice was fastened in the bend; the thigh was completely flexed on the abdomen, and the patient slept in this posture. Two quarter-grain doses of morphia were administered subcutaneously during the night.

On the following day (May 29th) the pulsation had decidedly lessened. At 9.20 A.M. digital compression of the common femoral artery was commenced. At 12.30 one of the dressers announced that pulsation had ceased in the swelling. At 2 P.M. it was ascertained by Mr. Croft that pulsation had stopped, and a branch could be felt pulsating over the inner side of the patella. The groin was becoming tender, and the temperature of the limb had fallen. The pain in the ham and leg had ceased about 12.30. The leg was enveloped in cotton-wool. Modified compression of the femoral artery was continued. At 9.30 P.M. compression was discontinued. The tumour was firm, and pulsation in collateral vessels could be distinctly felt. The man was tolerant of all the measures taken. Pulsation did not return, and the man was allowed to leave the hospital on June 24th, or twenty-five days after the compression was discontinued.

SUSSEX COUNTY HOSPITAL.

CASE OF SUDDEN COMA AND PARALYSIS; PARTIAL RECOVERY OF CONSCIOUSNESS AND POWER; RAPID DEATH; HYDATIDS OF PINEAL GLAND, LIVER, AND PERITONEUM.

FOR the notes of this interesting case, we are indebted to Mr. Herbert Smith, house-surgeon.

M——, an Italian, aged seventeen, seller of ices in the street, was admitted at 5.15 P.M., on May 5th, 1877, completely comatose. It was stated by those who brought him

that he was found lying insensible in the street, very blue in the face, rigid, with blood coming from his mouth. He was not intemperate, had lived well, and enjoyed good health up to that time. Had not been ill-treated.

On admission he was quite comatose; face dusky; lips blue, swollen, with slight traces of blood about them; gums pale; conjunctivæ barely sensitive; pupils much contracted, equal, fixed; mucous rattles in throat; inspiration laboured, heaving; expiration moaning; no stertor. Respiration 29; temperature in axilla below 95°. Pulse at wrist imperceptible. No odour of alcohol about the breath. No marks of violence. Extremities cold, feet and hands livid. There appeared at first to be total paralysis and insensibility of limbs; no reflex action. Motions passed involuntarily. A few minutes later, on pinching the pectoral muscles, he drew his shoulders inwards, and moved his hands upwards, calling out as if in pain. Gradually he began to move all his limbs and to recover consciousness. A catheter was passed, but the bladder was empty. At 9 P.M. his temperature was 98°; pulse at wrist still imperceptible. Had passed four motions in the bed. Was slightly conscious, and said he felt better, but complained of pain in the abdomen. Extremities somewhat less cold.

Shortly before 6 o'clock the following morning he vomited some brownish fluid. Starting up in bed, he cried out with pain in the abdomen. At 6 o'clock, thirteen hours after admission, he was dead.

Autopsy.—Body livid, well nourished; no dropsy; slight abrasions on left thigh.—Thorax: The lungs small and more than usually collapsed, almost airless, slightly emphysematous at their edges, somewhat gorged posteriorly. In the upper part of the left lung was a small calcareous mass about the size of a pea; otherwise the lungs and pleuræ were healthy.—The heart was quite healthy, but the aorta had two small opaque spots in its inner coat, opposite the posterior sigmoid flap.—Abdomen, &c.: There was a small puckered degenerating hydatid cyst in the peritoneum, between the bladder and rectum. There was slight injection of the peritoneum covering the small intestines in the centre of the abdomen. The stomach contained a large quantity of dirty brownish fluid, with some boluses of half-digested food; mucous membrane reddened near cardiac orifice, with a few petechial spots here and there. Intestines healthy, containing fluid similar to that in the stomach. Solitary follicles prominent. Mucous membrane of lower end of rectum congested. Liver very large; on the upper surface of its left lobe was a small transverse linear indentation, like a scar, there being, however, no corresponding cicatrix in the abdominal wall, and no cicatricial tissue penetrating the substance of the organ. It seemed not improbable that the hydatid cyst, before-mentioned as lying between the rectum and bladder, had escaped from the liver at this point, and falling down to the bottom of the peritoneal cavity, had become fixed to that membrane in that situation. At the upper and posterior part of the right lobe, close to the lateral ligament, was a hardish swelling. On cutting into this, a small hydatid cyst was found at the surface, close beneath which was a large cavity (as big as a moderate-sized fist), lined by a puckered bile-stained membrane, rough and calcareous to the feel, containing several small, clear, hydatid cysts, and a large collapsed one; also a little bile, which exuded through the walls into the cavity when the liver was squeezed. At the anterior part of the upper surface of the left lobe was a smaller opaque white swelling; also, on the surface, about the size of a small walnut, consisting of a degenerating hydatid cyst, partly puckered gelatinous folds, partly calcareous. The liver-substance itself was healthy. (Microscopical examination of the cysts revealed multitudes of echinococci.) Mesenteric glands enlarged. Spleen large, healthy-looking. Kidneys pale, but healthy. Bladder contracted, healthy; prostate healthy. Slight hydrocele of left tunica vaginalis, with some thickening of the epididymis; testis itself healthy.—Head, &c.: No marks of violence externally; dura mater congested; structure of brain healthy and firm. There was a small clear cyst, in all probability an hydatid (though no microscopical confirmation was made, as the specimen was kept for the museum), with a few small vessels passing over it (not in its wall), on the pineal gland. This cyst was about twice the size of the gland itself. It did not appear, however, to exercise any pressure on the neighbouring parts. The only other noticeable thing was that the choroid plexuses were perhaps rather fuller than usual. Spinal cord healthy.

MANCHESTER ROYAL INFIRMARY.

CASES OF OVARIOTOMY.

(Under the care of Dr. THORBURN.)

FOR the notes of the following cases we are indebted to Dr. Henry Tomkins, house-physician.

CASE 1. *Ovarian tumour; operation; recovery.* — M. H——, a single woman, aged forty-five, employed in a cotton-mill, was admitted in October last. She had always enjoyed good health, and had never had a child. Menstruation ceased ten years ago; previous to that time she was regular. About three years ago she first noticed a swelling in the abdomen, which gradually increased in size without much pain.

On admission she was rather thin and anæmic; had been losing flesh somewhat lately. The tumour, which had increased rapidly during the past three months, measured thirty-six inches round the umbilicus, and projected more to the left side than to the right. Abdomen dull on percussion in front to four inches above the umbilicus; resonant in flanks. Percussion-wave distinct. Uterus and vagina normal. The abdominal parietes were thin, and glided freely over the surface of the tumour. The tumour appeared movable.

On Oct. 23rd tapping was performed, and four pints and a half of thick coffee-coloured fluid were removed. The fluid rapidly reaccumulated, and operation was decided upon and performed on Nov. 3rd; bichloride of methylene was the anæsthetic employed. The usual incision was made in the median line, the tumour was tapped in two or three separate cysts, the fluid (which varied considerably in character in the different cysts) was evacuated, and the tumour was brought out through the wound. Some slight adhesions had to be broken down at the posterior part. The pedicle, long and slender, was transfixed and tied by silk ligatures, cut short, and then dropped into the abdominal cavity. The right ovary was normal. The wound was closed by six or eight wire sutures, and dressings of glycerine and carbolic acid were applied.

The tumour, consisting of several cysts, weighed five pounds and three-quarters.

The temperature, half an hour after operation, had fallen to 97·8°; pulse 76. There was but very slight vomiting. At 10 P.M. the temperature was 100·6°.

The sutures were left undisturbed until Nov. 12th, when they were all removed, and the wound found in a most healthy condition, adhesion by first intention having taken place. Henceforth the case went on well without interruption, and the patient was soon convalescent.

CASE 2. *Ovarian tumour; operation; convalescence.*—S. H——, a spare woman, unmarried, aged twenty-six, a servant, was first admitted into the infirmary in August last with an abdominal tumour, which she noticed about twelve months before. The tumour increased slowly and uniformly. General health very good, habits of life regular, never been pregnant. The tumour occupied the centre of the abdomen, rising some four inches above the umbilicus, and extending equally to the right and the left side. Percussion dull all over tumour, resonant in lumbar region. Uterus and vagina normal; catamenia regular.

On August 15th she was tapped; twenty-two pints of dark fluid removed. Left the hospital and returned in October, the fluid having reaccumulated to the same extent as before.

On October 22nd was again tapped, and sixteen pints of same fluid removed. The skin did not glide over the tumour at all freely, and the tumour was not very movable, but there was no distinct history of any inflammatory attacks.

The operation was performed on Nov. 12th. Methylene was used at the commencement of the operation, but after complete anæsthesia was produced chloroform was given. Extensive adhesions were found, especially in front and to the left side. These were broken down by the fingers, much force having to be employed, and considerable oozing of blood taking place from the torn surfaces. The tumour, which was from the left ovary, consisting of one large and one smaller cyst, was brought through the wound, and the pedicle, being thick and short, was transfixed with three silk sutures, each tied separately, cut, and dropped into the abdominal cavity. The wound was closed as in the previous case, and the patient removed to bed. Half an hour after

the operation the temperature was 96·8°; pulse 92. At 10 o'clock the same night the temperature was 99·6°. The patient had rather a restless night, notwithstanding subcutaneous injection of morphia, vomiting being rather troublesome. The cyst weighed four pounds and a half.

Since the operation the patient has been doing exceedingly well, not a bad symptom having occurred. The sutures were removed on the ninth day, the edges of the wound having completely united without any suppuration.

Both the above operations were performed under the carbolic spray.

Dr. Thorburn made some clinical remarks on the subject of ovariotomy, which will appear separately. He referred specially to the treatment of the wound by carbolic glycerine, and to the same method of carbolising the pedicle which he has pursued in twenty-four cases treated within the peritoneum.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Histology of Chronic Superficial Glossitis.—Maternal Impressions.

THE ordinary meeting of this Society was held on the 8th inst.; Dr. C. West, President, in the chair. Two papers were read: a brief one, by Mr. Butlin, on the minute anatomy of the "smooth tongue"; and a lengthy one on the well-worn subject of maternal impressions, by Mr. Sedgwick, in which the author arrived at the conclusion that, after due allowance for exaggeration and error, there remained a certain number of cases in which the mental influence of the mother on the development of her offspring was undoubted, and that that influence could only operate gradually and through the medium of the blood.

A paper was read on the Microscopical Anatomy of Chronic Inflammation of the Surface of the Tongue, by HENRY T. BUTLIN, F.R.C.S. It consisted of a careful description of the histological characters, hitherto undescribed, of the smooth, glossy tongue, called by Clarke "chronic superficial glossitis." The author had examined three specimens, two of which were associated with epithelioma. The changes were found to consist of thinning of the epidermis, destruction of the papillæ and other appendages, thickening and increased vascularity of the corium and submucous tissue, and infiltration of the latter with small round cells. These characters presented a striking similarity with those of psoriasis or ichthyosis linguæ, although some writers, as Debose and Nedopil, describe a thickening of the epidermal layers in that affection. There is, however, no essential difference in the microscopical characters of the two diseases—a resemblance further borne out by the occasional occurrence of epithelioma with the smooth tongue, and of white patches on its surface. The paper was illustrated by a number of beautifully executed drawings. — Mr. GASKOIN referred to a case of lupus affecting the left ala of the nose, in which a patch on the surface of the tongue nearest to the disease extended in proportion as the lupus increased. — Dr. THIN said that the drawings showed clearly that the changes in the smooth tongue were those of an early stage of epithelioma. One of the first changes was a desquamation of the horny layer; then followed an infiltration of the subepithelial tissue with round cells, and a downward growth of the cells of the mucous layer. He mentioned the occurrence of a condition of smooth tongue in cases of chronic dysentery and liver disease, but did not know if its minute anatomy had been described. The analogous condition of the intestine showed no downward growth of the epithelium. — Sir JOSEPH FAYRER said that the glazed condition of tongue was common in cases of chronic diarrhœa in the East—e. g., the hill-diarrhœa of India,—and its occurrence was an indication of an advanced state of the intestinal disorder. It frequently passed to complete obliteration of the papillæ. — The PRESIDENT remarked that the inference drawn from the paper would be that this condition was simply of local significance and the forerunner of malignant disease of the tongue. But it was not unfrequent to meet with a partial condition of smooth tongue in children suffering from various forms of dyspepsia and intestinal disorder. In such cases there were smooth patches on the tongue, with more or less of a mucous coating between them; and he thought it desirable that the question should be raised how far these conditions were indicative of a general change. In early life this condition seldom continued to present itself after the age of twelve and fourteen years, and it seemed to be related to the digestive derangements of the second dentition.—Mr. BUTLIN, in reply, said that he had never seen lupus associated with the smooth tongue. He agreed with Dr. Thin, that the changes corresponded to those of the early stages of epithelioma, for in both there was evidence of irritation of the epithelium and infiltration of the submucous tissue. In one case of smooth tongue in chronic diarrhœa he had found almost complete shedding of the horny layer and papillæ. He had never examined the smooth tongue of children microscopically, but in the variety he had described there was very little evidence of any dependence on a general constitutional state, for this disorder may continue for years without any change in the general health. He could hardly imagine that the acute form of this disease should easily glide into epithelioma, which was rather the result of long-continued but not very intense irritation.

A paper was then read on Maternal Impressions, by Mr. WILLIAM SEDGWICK, M.R.C.S., of which the following is an abstract:—In bringing forward the subject of maternal impressions, Mr. Sedgwick said it was useful to anticipate some of the objections that might be urged against it, by premising that great care had been taken to avoid, as far as possible, any unnecessary reference to cases which possessed no practical significance, or which, from their doubtful character, would tend to increase the scepticism of those who were well qualified to judge of this alleged influence. It was an established fact in reproductive development that women, as a rule, transmitted with far more facility than men. The normal influence of the mother on the intellectual development of her offspring had been well and familiarly expressed in the term "mother-wit," whilst "father-wit" was a term almost unknown; and in abnormal development it had been long known that women often served, and to a far greater extent than men, as conductors of an inheritance which they did not share. In like manner it was now popularly believed that it was the emotional impressions of the mother, and not those of the father, which admit of being imparted to the fœtus in the form of "mother's marks," to the exclusion of what might be called "father's marks." But this assumed limitation of emotional impressions to one sex did not always prevail; for it would be found, on inquiry, that originally either parent was thought to be capable of imaginatively affecting the offspring at the period of conception, and traces of this form of the belief had been lately found among some of the tribes in Central Africa. In directing attention to the influence of pictures and other æsthetic means of appealing to the imagination, Mr. Sedgwick remarked that there was an essential difference between cases in which some modification of fœtal structure had been slowly effected through the influence of the perceptive faculties, and those cases in which emotional impressions had been supposed to act on the fœtus by causing what has been erroneously described as a sudden arrest in its development. The occasional transmission to offspring of acquired defects of structure could not be logically objected to, since all abnormal modifications of the system must have been acquired before they could have been transmitted. It was no doubt difficult to distinguish between the alleged influence of maternal impressions and that of heredity. Complete elimination of hereditary influence, in the emotional transmission of physically acquired defects, could only be secured in cases of which the following might be selected as the type. The wife of a clergyman had a child born with deformity of the hand, characterised by the absence of one finger, and the complete union of the middle and third fingers, the united extremities of which were covered by one nail. At an early period of her pregnancy she had been much affected by seeing a child with exactly the same deformity of the hand, and the fact of the impression in this case had been communicated to Dr. Montgomery by a lady who had accompanied the patient when she engaged the doctor for her confinement. It was remarked that the establishment, through hereditary influence, of acquired instincts in the lower animals, as well as the occurrence of hereditary talent

in our own race, was apparently due to some modification of structure; and that when, in like manner, maternal impressions had been said to react, especially, if not exclusively, on the nervous system of the offspring, the effect might with equal probability be referred to some modification of structure produced through the medium of the blood. Many of those, however, who believe more or less in the influence of maternal impressions would probably refuse to admit the necessity of any such dependence on structural change. Thus Dr. Robert J. Lee had lately stated that "it would, on reflection, appear to be most natural that maternal impressions should be more frequently followed by unnatural condition of the intellect of the child than by any abnormalities of growth;" and in a lately published article on maternal impressions in one of our leading medical journals, there had been exhibited a corresponding tendency to theorise in the same direction, the effect produced on the fœtus being referred to "an induced current of nervous impression." After referring to Sir Everard Home's Croonian Lecture on the alleged discovery of what had been thought to be the missing nerve-link, it was urged that the exaggerated importance which had been assigned to nerve-communication as the only probable way by which the supposed influence of maternal impressions could be conveyed to the fœtus, had no doubt had a tendency, in former years, to retard and obscure the inquiry; and the opinion was expressed that the limitation of the influence of a maternal impression to a corresponding organ or tissue in the fœtus, as a consequence of some slight and inappreciable alteration in the blood of the mother being imparted to the local nutrition of her offspring, might physiologically be regarded as more probable than limitation effected by nerve-influence. There was no reliable evidence that a congenital defect had ever been the direct and immediate result of arrested development, whilst the popular belief that a maternal impression could be conveyed to the fœtus and affect it like an electric shock should be simply dismissed as a popular fallacy. The influence of the impression at an early period of pregnancy could only be conveyed to the part through the medium of the blood or nutrient fluid; and it was, consequently, improbable that the first stage in the production of abnormal development should be a local arrest of fœtal nutrition. After citing evidence to show that the arrest in cases of defective development had been preceded by increased determination of some kind to the part, Mr. Sedgwick directed attention to the comparative physiology of reproduction in the lower animals, and showed that when the tendency to an artificially developed excess of structure had, through hereditary influence, been pushed too far, it was apt to be followed by deficiency and arrest, as in the case of some top-knotted varieties of birds. Abnormal increase of structure without any subsequent arrest, occurred in cases of supernumerary fingers and toes, which had been sometimes referred to the influence of maternal impressions; and there was local increase of the vascular tissue in nævi, and of the hair, if not always of the skin, in those pseudo-mimetic moles, which had been said to resemble the rats, mice, and other animals with hairy skins which had frightened women during some period of their pregnancy. It might be expected that a maternal impression sufficient to produce a physical peculiarity or defect in the fœtus through the medium of the blood would reappear, at least in a modified form, in some of the succeeding offspring; but there was very little evidence of any kind in favour of such an occurrence, and generally, when there had been a reappearance of the defect, there had been an alleged recurrence of the maternal impression. In alluding to the many curious and some mystical delusions connected with this popular belief, Mr. Sedgwick called attention to the supposed transfer of maternal impressions to a selected part of the body, and the changes which were said to occur periodically in the nævi ascribed to maternal impressions, and to some of the scientific and other objections to the belief. In conclusion, he directed attention to the evidence in favour of the influence of maternal impressions, derived from observations on the lower animals, and, with reference to the episode of Jacob's rods, they were apparently employed not to originate, but simply to aid in the increased production of especially marked offspring. There had been many illustrations of the effect produced by variously coloured objects on the breeding of sheep and other animals since patriarchal times. Dr. Alexander Harvey had collected and published some satisfactory evidence on the subject, as had also other observers; and a good illustration of this alleged influence on the breeding of sheep had been lately communicated by a much-respected clergyman in the West of England. In reviewing the evidence which had been adduced in favour of a belief in the influence of maternal impressions, Mr. Sedgwick admitted that it did not appear to be, at present either sufficiently relevant or trustworthy, as regarded its limitation or its extent, for a final decision to be pronounced. There was indirect evidence that the influence of the mind over the body might, in the case of pregnant women, be so far extended as sometimes to affect the fœtus, and there was nothing which could be regarded as physiologically inconsistent with the belief in its uncorrupted form. But the direct evidence in its favour was limited to a comparatively small number of cases, in which the maternal impressions, received at definite periods of pregnancy, had been fairly well authenticated before the birth of the offspring. Some of these cases had been clearly independent of hereditary influence, and none of them could be accounted for by any theory of coincidence. As the only recognised medium of communication in such cases was the blood, it was probable that the influence of the impression was always gradual, and never sudden, in its operation; and that the prevailing fallacy respecting the supposed suddenness of the effect produced had resulted from the original form of the belief having been corrupted in after years.—Mr. D. NAPIER exhibited two models of the mouth of a young lady, twenty-five years of age, in which the milk teeth were still retained, with the exception of the upper central incisors. Her sister showed the same abnormality, one which was unique in his experience. In this case the only reasonable interpretation appeared to be that of a maternal impression, for the mother said that during her pregnancy, and still more after her children were born, she had a great dread lest they should present this deformity, which had occurred also in one of her relatives.—Mr. SAVORY said that, after making all possible allowance for imagination and fable, there remained some cases which could only be explained on the doctrine of maternal impression. There was not much difficulty in explaining the influence of physical interchanges between mother and offspring; the transmission of small-pox and of syphilis were instances of this. The influence of mind over physical conditions was shown in the changes produced in the milk of a suckling woman by mental emotion. But in the case of maternal impressions we have not only to imagine the effect of mental emotion in determining changes in structure, but the difficulty lay in understanding how a *mental* impression on the mother should, as it were, be translated into a corresponding physical impression on the fœtus. It would seem as if here might be found a way by which the chasm between the properties of mind and those of matter might be bridged over; for the most materialistic of physiologists came to a stop when they have to grasp the phenomena of consciousness.—Dr. THIN would like to have all reported cases of maternal impression submitted to the same scrutiny as Sir G. C. Lewis subjected instances of supposed centenarians; not so many years ago people were put to death as witches on evidence which at the time was thought satisfactory. He was not aware that the subject of maternal impressions had ever been thoroughly investigated, and he recalled a statement made at that Society about a year ago, in which the speaker cited a case of a mother who, during her pregnancies, was subjected to strong mental impressions, but whose children were all born without any defects. Alluding to the subject of alleged transmission of syphilis from the father to the mother, Dr. Thin said that a recent writer found that out of 400 cases of congenital syphilis the mother was free from the disease in 166; and from a search into the literature of the subject, the same writer had concluded that there was no proof of the inoculation of the mother from the fœtus in utero.—Mr. J. WOOD suggested that Mr. Napier's case might be one of hereditary transmission.—Dr. MATTHEWS DUNCAN said that this question was one constantly being brought up at Societies, and the reason of its unsatisfactory nature was that writers failed to make the distinction between a coincidence and a consequence. Until this preliminary question were decided and taken into consideration in dealing with the subject, we might continue to speculate as blindly as we had since the days of Jacob.—The PRESIDENT remarked that instead of writers allowing their imagination to play on assumed facts they should seek for positive facts on which to base their reasonings.

A case of Favus of the Scalp was shown to the Society

by Mr. GASKOIN. The subject was a Polish lad, nine years of age, and the disease was of three years' duration, appearing first after an attack of scarlet fever. The favus, which was perfectly typical and very extensive, had not spread by contagion. It was being treated locally by washing with oil and methylated spirit.

The Society then adjourned.

PATHOLOGICAL SOCIETY OF LONDON.

Eruption from Bromide of Potassium.—Hyperostosis and Cancer.

THE annual general meeting of this Society was held on the 4th inst., Dr. Murchison, F.R.S., President, in the chair. The report of the Council, and the treasurer's balance-sheet, were read and adopted, and the election of officers and Council for the ensuing year took place. An account of this portion of the proceedings will be found in another column. The rest of the time was occupied in the exhibition of specimens and cases of "osteitis deformans," by Mr. Howse and Dr. Goodhart; and of a case of bromide eruption, by Dr. Crocker.

The following gentlemen were elected members of the Society:—R. A. Gibbons, M.D., J. W. Phillips, and Herbert Winser Smith, M.B.

Dr. H. R. CROCKER related the particulars of an Eruption, produced by the administration of Bromide of Potassium, in an Infant, and exhibited the case to the Society. The child, a female, eight months of age, was sent to the skin department of University College Hospital on December 22nd, for diagnosis. Its father died of consumption some months before its birth, the mother was healthy, and the child well up to the time of vaccination. About the twelfth day after its vaccination, in August, a rash appeared all over the body, consisting of small raised red spots, the size of millet-seeds, with whitish, watery heads. This faded in a few days, but fresh crops appeared from time to time for about three weeks, but after that the skin remained clear until the present eruption. The child was not, however, quite well, and, after vomiting, on November 12th, had convulsions, which continued at intervals until the 19th, and for which one grain of bromide of potassium three times a day was prescribed from the 12th to the 24th, when the dose was increased to two grains three times a day, which was taken up to December 13th. From November 19th to the 24th, a quarter of a grain of iodide of potassium was given with each dose of bromide. The eruption appeared at the beginning of December on the site of the vaccination, and the medical man attending the case described it as, at first sight, resembling a vaccine vesicle of about the tenth day. When brought to the hospital it had the following appearances:—On the site of the vaccination there was an irregular patch the size of a crown piece, covered with a thick, raised, sienna-coloured scab, irregularly sulcated and split up; on the border were two small pustules, but no surrounding inflammation. On the face there was a patch the size of a shilling on each cheek, but they had been rubbed, and were discharging. On the buttock and loins were several patches, and some of them showed a central scab on an oval base, the size of a horse-bean. This base was raised about one-sixteenth of an inch above the surrounding skin, was pale red, and appeared to be made up of new tissue. At the end of December a fresh crop appeared on the arms and face, and then it could be seen—as in a similar case, exhibited last year to the Society by Dr. Lees, and published in the current volume of the Transactions—to commence as a red papule, which soon became an acuminate pustule on a raised soft red base, and appeared to be due to an inflammation of the follicles. These pustules were aggregated into patches of variable size, from half an inch to two inches in diameter, increasing by the addition of pustules to the circumference; but, as Dr. Lees observed, as long as the pus remains, the heads of the individual pustules can be discerned; solitary papules and pustules are also to be seen on the arms and face, and in these the acneiform character of the eruption is apparent, but the abundant cell-formation gives a more pustular condition than is seen in ordinary acne. Subsequently thick crusts, as described above, are formed, but between these two stages is another, when the fleshy-looking tubercles previously alluded to are present. There are thus three stages in the eruption—(1) a pustule, or aggregation of pustules, on a soft, raised, and reddened base; (2) pale-red, fleshy-looking tubercles, either round or oval, in size varying from a pea to a bean; (3) thick, dark crusts, tuberculated and split up by deep sulci. The face, arms, loins, and buttocks, but especially the first two, were the parts chiefly affected in this case, which differed thus from that of Dr. Lees, in which the limbs and back were but slightly affected. The eruption appearing first on the site of the vaccination, and the small dose of the bromide, are points worthy of notice.—Dr. BARLOW had seen cases exactly like this from the administration of the bromide alone; in this case iodide was given also. It was interesting to note that the rash first manifested itself at the seat of the vaccination scar; a comparable case he had seen in which a bromide rash appeared at the site of a blister.—The PRESIDENT inquired if these eruptions were equally common in adults as in children. He had never seen anything like it in adults, although he had given the bromide in large doses. He had lately seen a young lady who had been taking one drachm per diem for the last eight years.—Dr. HARE was about to put the same question. He had given the bromide in very large doses, and for long periods, but had never seen it produce anything approaching an eruption of this kind. The only manifestations were an occasional acne rash on the shoulders and upper part of the neck.—Dr. WHIPHAM had seen lately at St. George's Hospital a lad who had taken the bromide in three-drachm doses three times a day, and there was a scanty eruption of acne.—Dr. F. TAYLOR pointed out that as a matter of fact any rash from the administration of bromide of potassium was rare in children.—Dr. COUPLAND suggested that the nature of the rash in Dr. Crocker's case was essentially the same as that of the "bromide acne" of the adult; both were follicular inflammations, only in the child of a more severe type.—Dr. CROCKER had seen some eruption like this in the adult. It was really of the same character as the acne eruption in the adult, with a greater tendency to coalescence and suppuration of the inflamed follicles. The development of it could be traced. There was less induration than in acne.—Dr. HARE thought that if this eruption were similar to that in the adult it should prevail chiefly at the time of life when acne is most marked—viz., puberty; but even at that period eruption from bromide of potassium was rare.—Dr. CROCKER, from inquiries at the Hospital for Epilepsy, had found that in comparison with the number of patients taking the bromide even an eruption of acne was rare.—Dr. BARLOW thought that we must recognise an idiosyncrasy in these cases, in which an eruption was produced by very small doses of the bromide. It was a more virulent form of follicular inflammation than the "bromide acne," papules of which could always be met with in the vicinity of the eruption.

Mr. HOWSE showed a man, thirty-seven years of age, the subject of General Hyperostosis. He was tall, well built, and healthy-looking. Both knees were much enlarged, the left being larger than the right; the joints contained fluid, and the lower ends and condyles of the femora were greatly thickened. There was thickening also of the right fibula and the left tibia, especially opposite to a scar, the seat of an old injury; and uniform enlargement of the lower three-fourths of each forearm. The radius and ulna were swollen, the superficial veins enlarged, and the temperature to the hand seemed raised. The movements of the wrist were unaffected. The clavicles were enlarged, the left most so; and the ribs were massive. He could not ascertain if the head had become enlarged. Sir James Paget had seen the case, and did not regard it as an instance of "osteitis deformans," nor think that it would become such. He thought it rather a case of general osteitis due to some constitutional cause, which might in this case be syphilis. The patient's mother had died of cancer of the breast. Up to twenty years he had enjoyed good health. He had always had hard work, raising and carrying heavy weights. He enlisted in the army when twenty years old, and served much abroad. Since he left the army he has been employed in gas-works, in which he has to perform definite movements by which all the strain is thrown first on the right arm and then on the clavicle. Sixteen years ago he received a kick on the left

leg; this was followed by an abscess, which laid him up for six weeks; no bone came away, but thickening of the tibia took place then. He has had warty growths on the penis (probably gonorrhœal), and occasional sore-throat, but never any skin eruption; so that the fact of his having been a soldier is the only ground there is for believing him to have contracted syphilis. Mr. Howse thought the case possibly the first condition of "osteitis deformans"; for none of Sir James Paget's cases were in young subjects. In this case the enlargement commenced when the patient was comparatively young, and it was conceivable that retrograde changes might have been in progress. There was no evidence of any growth of cancer or sarcoma about the bone; the enlargement about the knees being due probably to ossific deposit and thickening of the synovial membrane. Under iodide of potassium the fluid in the joints became partly absorbed, and the outline of bone more distinct; the bones even slightly diminished in size, and the elbow-joint, which was almost fixed after he left the hospital, had regained its mobility under the iodide. In Sir James Paget's case no improvement was effected by the iodide; but at the same time we could hardly say that an enlargement was syphilitic because it disappeared under iodide of potassium.

Dr. GOODHART showed specimens of Symmetrical Sarcoma of Ilia with Hyperostosis of Cranium. The patient, a woman sixty years of age, was admitted into Guy's Hospital under the care of Dr. Wilks, in September, 1874, suffering from paraplegia. Three months before admission she had pain under the shoulder-blades, and occasional difficulty in micturition. She died soon afterwards from suppurative nephritis. After her death the cranium was found to be greatly thickened, the inner table marked by deep grooves, and no distinction existed between one table and the other. In two places there were circular yellow patches of cancer. Masses of hard new growth occurred in several places down the spine; and in the blade of each ilium was a large nodular outgrowth of soft medullary sarcoma. The other viscera were healthy. The paraplegia was due to the growth involving the lower part of the lumbar vertebræ. Dr. Goodhart said that the case was of interest in relation to the question raised by Sir James Paget as to the nature of the disease, which he styled "osteitis deformans." Sir James regarded it as of the nature of chronic inflammation, and did not lay much stress upon its frequent association with cancer; but of the eight cases on record six had died of cancer, and in the case just related by Mr. Howse, the patient's mother had died of cancer. Dr. Goodhart still thought that the change in the bones was rather that of a sort of generalised tumour than an inflammation. An allied condition was illustrated in the case of multiple sarcomata shown by Mr. Butlin a few weeks ago, in which one might suppose there was a tendency in the whole connective tissue of the body to perversion and development of sarcoma. Other illustrations might be found in the occurrence of multiple fibromata, and more strikingly in the case of lymphadenoma, where the lymphatic tissue generally throughout the body tended to develop into tumours. So in the case of examples of general hyperostosis or osteitis deformans, there appeared to be a tendency on the part of the bones to overgrowth of tissue.

Dr. GOODHART showed also a specimen of Diffuse Sarcoma with Hyperostosis of the Cranium, from the body of a man fifty-five years of age. The patient suffered from much pain about the hip, and gradually sank after six months' stay in hospital. There was periosteal cancer of the ilium, spine, ribs, cranium, and femur, with infiltration of the mediastinal glands and suprarenal bodies. The growth was a spindle-celled sarcoma. There was thickening of the cranium and of the other bones at the seat of disease.

Mr. HOWSE showed a specimen of Hyperostosis of the Tibia, associated with Sarcoma. The patient, a lady sixty-five years of age, enjoyed good health until two years ago, when she began to suffer from pain in the right leg. She had had rheumatic fever in early life; was spare, but of healthy appearance. The pain, dull and aching, extended from the knee to the ankle; and, when it first began, the bones were straight, but they gradually became slightly bowed. In September, 1875, in consequence of intense pain on the inner side of the tibia, she consulted Dr. R. Harris, who noticed the curving of the tibia and fibula, with the concavity to the inner side. A semi-fluctuating swelling then appeared on the inner side of the head of the tibia; a small quantity of serum escaped on puncture, and the growth increased. Mr. Howse saw the case, and detected a faint pulsatile thrill in the tumour, which he thought was probably a vascular sarcoma. After exploration, he amputated the limb above the knee, and the stump healed well. But at the time of operation she was suffering from lung symptoms, which, in five months, became more marked, and in seven months she died apparently from intra-pulmonary growth. No post-mortem examination could be obtained. At the time of operation no other bone could be discovered to be enlarged. The tibia is seen to be curved, and has a large spindle-celled growth at its upper extremity, in the vicinity of which the bone is altered in a manner similar to bone around sequestra, there being a disappearance of Haversian canals, and the structure that of cancellous tissue with thickened laminæ. The ordinary marrow-cells, too, were replaced by small refracting bodies similar to those which are met with in extensive sclerosis of the skin, and scattered among the tissues were patches of pigment from extravasation of blood. In the other case he had brought forward there were purpuric spots on the skin. Mr. Howse concurred with Dr. Goodhart in his view as to the nature of the changes in the bones, analogous to cases of multiple connective-tissue tumours. He mentioned a case of symmetrical tumours on the forearms—definite spindle-celled growths—which, not being wholly removed by operation, disappeared entirely under iodide of mercury. This showed that it was difficult to distinguish between a tumour and a product of inflammation. If the condition in these cases was one of osteitis, it might be possible for the inflammatory products in certain conditions to develop into spindle-celled growths, and upon this he would remark that, although styled "cancer," it was likely that all the cases of malignant disease associated with "osteitis deformans" were examples of sarcoma.

Mr. MYERS, referring to the inference drawn by Mr. Howse in his first case, that the patient having been a soldier was in favour of his having had syphilis, said this, which seemed to be generally assumed, was a great mistake, for the army was protected from syphilis, and cases of mere constitutional syphilis were far less frequent among soldiers than in civil life.

The Society then adjourned.

PROVINCIAL MEDICAL SOCIETIES.

BRADFORD MEDICO-CHIRURGICAL SOCIETY. — At the December meeting (Dr. E. T. Tibbits in the chair), Mr. WHALLEY cited two interesting cases, and exhibited the specimens. The first was a case of Sarcocele, for which castration was performed. The tumour originated two years before, the patient having had gonorrhœa previously. The cord was tied as a whole, and the ligature removed after a search at the end of five weeks. The second case was one of Ovariotomy. The patient supposed herself at least seven months pregnant, but complained of failing health. Menstruation was present, but irregular. Examination disclosed a multilocular ovarian cyst, which was twice tapped, ten pints of fluid being removed each time. Subsequent rapid increase threatening life, the tumour was removed, extensive adhesions having to be separated. The solid part of the tumour weighed fifteen pounds. The patient did well for nine days; peritonitis then supervened, and death followed on the thirteenth day. Mr. Whalley afterwards exhibited several new instruments, and an ingenious appliance of his own for the removal of the ligature in the case of castration. —Mr. MIALL read a paper on Injuries of the Head, containing a full account of fifteen cases. The theory of concussion and the nature of compression were discussed, and the symptoms of fracture of the base of the skull detailed, with instances of recovery. The following conclusions were drawn: (1) That the existence of concussion pure and simple is not proved; (2) that compression is scarcely met with by itself, being usually in combination with other conditions; (3) that unconsciousness more or less complete, with irritability and restlessness, result from laceration, contusion, or congestion of the base of the brain; (4) that injury of this part, insufficient to cause symptoms at first, will produce symptoms after inflammatory changes have taken place; (5) that inflammation, especially of the membranes, produces delirium; (6) that paralysis to any marked extent is rare in head injuries, though slight and more circumscribed paralysis is common. In treatment the value of rest was insisted on.—

In the discussion which followed, Dr. Burnie and Mr. Whalley, while admitting that laceration of brain-substance might occasion irritability, contended that the old view of concussion was correct. — Mr. Foster, Dr. Bell, and Dr. Goyder concurred with Mr. Miall in the frequency of recovery from fracture of the base, the latter arguing that many of the effects of so-called concussion were due to laceration.—The Chairman, Dr. Tibbits, pointed out that the almost universal effect of irritability might assist in the diagnosis of brain disease. Inflammation of the meninges also presented the same state without loss of consciousness. All the speakers agreed as to the great therapeutic value of rest.—Mr. Miall replied that, as regarded concussion, when death ensued there was evidence of laceration, or, at least, congestion of brain-substance. The cases of Dr. Burnie and Mr. Whalley might be mere shock to the system, acting indirectly on the brain. Some cases evidenced brain contusion, although even contusion implied injured structure. Those who believed in concussion should prove it by satisfactory evidence. In regard to Dr. Tibbits's view of irritability, his (Mr. Miall's) results proved its association with brain-injury, whereas inflammation of the meninges produced delirium rather than irritability.

MIDLAND MEDICAL SOCIETY.—The last ordinary meeting of this Society was held on December 12th, Dr. Sawyer, President, in the chair.—Mr. WEST exhibited four cases of Excision of the Elbow, three of which were for disease, and one, primary, for injury. In all the cases the result was highly satisfactory—flexion, extension, pronation, and supination being perfectly performed.—Mr. THOMAS showed a patient on whom he had performed the operation of Excision of a part of a Rib, for the cure of chronic empyema. The case was narrated at length in the paper he subsequently read.—Mr. BRADFORD exhibited a specimen of Vertebral Caries. The disease was limited to the ninth dorsal vertebra, the body of which was reduced to a mere shell. During life there had been no history nor objective symptoms indicating bone disease, and the case had been diagnosed myelitis. The spinal cord, also exhibited, was compressed opposite the ninth dorsal vertebra by inflammatory products effused between the outer surface of the dura mater and the spinal canal. Its substance here for about an inch was soft and diffluent; above this part the structure and size of the cord were normal, below considerable atrophy had taken place. Mr. Thomas read the histories of three cases illustrating the surgical treatment of children's diseases. The first was a case of diphtheria in a child five years old, on whom the operation of tracheotomy was performed. High fever, albuminuria, and exudation of diphtheritic membrane continued for about three weeks after the operation, but the patient made a good recovery. The second was a case of recto-urethral fistula following lithotomy, which he had succeeded in closing, after several unsuccessful attempts, by making a deep incision on each side of the urethra, dividing the base of the triangular ligament and the transverse perineal muscles. This allowed the pared margins of the fistula to be approximated without tension on the sutures. The third was a case of chronic empyema treated by excision of about two inches of the seventh rib. The opening in the thorax had closed completely about six weeks after the operation, and during the same time the patient rapidly improved in every way.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.—The third monthly meeting was held on December 13th, Mr. Morgan, President, in the chair.—Mr. H. E. ARMSTRONG (medical officer of health for Newcastle-on-Tyne) presented a report of the cases admitted to the Fever Hospital during the month of November, and stated that the town was healthy.—Mr. SPEAR (medical officer of health for South Shields, Jarrow, and Hebburn) reported that scarlet fever was epidemic at South Shields. In several cases the disease had been propagated by children being sent to school while still convalescent.—A committee, consisting of the President, Mr. Spear, Mr. H. E. Armstrong, and Dr. Byrom Bramwell, was appointed to consider the subject, and to report to the Society.—Dr. ANDERSON showed three Calculi removed by lithotomy. The first patient was a boy aged four years and a half, the second a man aged thirty-two, the third the boy mentioned as Case 1. Symptoms of stone returned eight months, and the second operation was performed nine months, after the first. All three cases had done well.—Dr. PAGE showed two Salivary Calculi removed from Wharton's duct by a free incision.—Dr. PAGE also showed a Urethral Calculus which had become lodged behind a stricture. The stricture was split up by Holt's dilator, and the stone was then expelled with the urine.—Dr. ARNISON showed two Calculi removed by lithotomy from the same patient, a child aged three years, at an interval of a year. After the first operation the bladder was carefully examined, and found to be empty.—Mr. HOPGOOD showed a recent specimen of Placenta Prævia. The gestation had advanced to the fourth month, when severe hæmorrhage came on. The case had done well.—Mr. MORGAN showed a beautiful specimen of Encephaloid Disease of the Femur.—Dr. EMBLETON showed several specimens of Monstrosities.—Dr. BYROM BRAMWELL showed a case of congenital Microphthalmos of the left eye.—Dr. HEATH showed a case of Hypertrophy of the Tongue.—Dr. EMBLETON read the notes of a case of Empyema treated by a free antiseptic incision. The patient, a boy aged sixteen, recovered well.—Dr. MURPHY read the notes of two cases of Chlorodyne Poisoning.—Dr. D. DRUMMOND read the notes of a very interesting case of Paralysis of the Pharynx occurring in a child aged fourteen months, and suggested that the paralysis was due either to lead-poisoning or to diphtheria. The child was in the habit of sucking a leaden rattle, and there was a history of ulcerated sore-throat.—Dr. BYROM BRAMWELL continued his paper on Intracranial Tumours, relating three additional cases.

NORWICH MEDICO-CHIRURGICAL SOCIETY.—The second meeting was held in the museum of the Norfolk and Norwich Hospital, on December 4th, 1877, Joseph Allen, Esq., President. The following gentlemen were elected members of the Society:—M. Phillippo, Dr. H. Watson, Mr. R. J. Mills, Dr. Shepherd Taylor, and Dr. Foot.—Mr. CADGE exhibited a specimen of Disease of the lower end of the Os Femoris, removed from a gentleman, aged between forty and fifty years, who had injured his knee some six or eight years previously. The patient's health was beginning to fail, and amputation was resorted to. A vertical section of the lower end of the thigh-bone showed that the outer bony lamina was expanded and thinned, and, at some points, there was no bony covering. The mass of the tumour consisted of material similar to ground-rice pudding, but yellowish in colour. No myeloid cells could be seen, only small cells with nuclei. The knee-joint was perfectly healthy. Mr. Cadge did not consider it to be a malignant tumour. The patient made a good recovery.—Mr. CHARLES FRITH read a short paper on Ormsby's Ether Inhaler, in which he pointed out the great advantages this form of inhaler possesses over all others, in being cheap, simple in construction, portable, the small amount of ether required, the short time required to produce anæsthesia, economy in the use of ether, and its safety. — Mr. LYDDON read some notes of a very interesting case of Rupture of the Urethra in a boy, thirteen years of age, caused by his falling on the edge of a coal-scuttle. There was considerable swelling and ecchymosis of the scrotum and perineum; the urine, small in quantity, was tinged with blood. Attempts were made for several days to pass a catheter, but failed. At last it became necessary to make an incision along the right side of the perineum, through which blood and urine freely escaped. A month later the wound had healed, and the urine passed through its proper channel. — Mr. W. H. DAY narrated the case of a prisoner under his care in the City jail, who suffered from obstinate vomiting, induced voluntarily for the sake, it was supposed, of obtaining a mitigation of his sentence. It had existed from May until December, and every known form of treatment had been tried without avail.—Dr. BEVERLEY mentioned the case of a man, aged fifty-six, who was the subject of aphasia, and in whom the loss of speech was associated with paralysis of the left side of the body. The most singular feature in the case was his inability to converse in English, but his volubility in the expression of French terms—a language he had not used for seventeen years.

ST. MARK'S OPHTHALMIC HOSPITAL, DUBLIN.—Owing to want of proper accommodation, which rendered it necessary to refuse admission to deserving cases, it has been determined to enlarge this institution. The plans for the necessary alterations have been prepared, and will cost some £4000 for their completion, and will include separate and isolated wards for the reception of infectious and contagious diseases of the eye, which heretofore under the existing limited arrangements had to be excluded. A bazaar, in aid of the Building Fund of the hospital will be held on the 24th inst., under the patronage of the Duchess of Marlborough.

Reviews and Notices of Books.

A New System of Medicine, entitled Recognisant Medicine, or the State of the Sick. By BHOLANOTH BOSE, M.D. Lond., H.M. Indian Medical Service. pp. 204. Churchill. 1877.

THIS work is written by one of the now numerous body of Hindoos who have come to Western Europe to learn the latest developments of those arts and sciences for the foundations of which we are indebted to their own countrymen in ages long bygone.

Dr. Bose's work may be said to be an earnest pleading for the more full, more accurate, and more extended clinical investigation of disease. He maintains that diseases are taught and treated far too much by rote—that a name is given to a group of symptoms, and the student is taught to seek for those symptoms, though, in many cases, the more important ones may be absent, or may be concealed, or may be subordinate to others of much greater importance; whilst he is not taught the state of the sick, which, Dr. Bose thinks, should be far more thoroughly investigated than is now done, and that it will not be till this is accomplished that medicine will be raised to the position of an exact science. In all this we cordially agree. At the same time, is not this what every intelligent hospital physician is constantly inculcating on his clerks and students, that they must not treat symptoms, must not give a name to a group of symptoms, and proceed to treat this as books say the disease so named should be treated, but that the state of the patient should be carefully inquired into, and the treatment directed in accordance with the information obtained? Moreover, it might fairly be argued that a complete inquiry into the symptoms of the patient would necessarily include his state, or, rather, would constitute the key to his state or condition. The instance he gives—namely, that in phthisis the wasting which is the most prominent event, a change more universal and alarming than the tubercular deposition which may have given rise to it, is habitually disregarded—is, we think, hardly borne out by facts. Most physicians are accustomed to weigh their patients from time to time, and to bestow great consideration upon the food and general habits of life, which may not only tend to arrest the progress of the primary disease, but may promote the nutrition of the body.

It is a matter of regret that the author has employed the term "muscular sense" to designate the irritability, or rather perhaps the perceptivity, of muscle, since the word has obtained a very precise physiological meaning. Again (p. 74), he fights against the air in condemning those who deny the existence of muscular tissue in the middle coat of the arteries. Does any one hold such an opinion? We regret also to have to differ from Dr. Bose in his classification of the motions occurring in the body into ciliary, tubular, and cellular. We think he confuses the cause of motion with the effects produced. The author has associated a large number of symptoms occurring in particular conditions of the system in a very orderly manner; but we doubt whether the new phraseology he has suggested will be generally adopted.

Hospitals: their History, Organisation, and Construction. Boyleston Prize Essay of Harvard University for 1876. By W. GILL WYLIE, M.D. 8vo, pp. 236. New York: D. Appleton and Co. 1877.

THIS is a book which contains a considerable amount of information, and is written by an author who has been at equal pains to master the historical as well as the practical and scientific parts of his subject. Most of the chief hospitals of the world are reviewed, and their good and bad points are touched upon. The chapters on "The Relations of Hospitals to Pauperism," and on "Organisation and Management," are both full of information, especially the latter, which contains many observations showing that organisation is well understood by the writer. The subject of the construction of hospitals is that which will be read with greatest interest, and the reader will be anxious to learn what ideas on the subject have been formed by one who is so learned in the literature of the matter in hand. We confess to a feeling of disappointment, for the author's only notion of a wholesome hospital consists of a series of one-storeyed pavilions, raised on high basements and dotted about at rare intervals in a luxuriantly-planted park. The connexion is by means of a corridor, the roof of which is on a level with the ward floor. The author gives a plan of his ideal hospital for about 300 patients. This consists of 27 totally distinct buildings, occupying an area of 25 acres. The buildings are united by 35,000 feet of corridor, and the physician, in travelling from his house to the furthest ward, has to walk nearly a third of a mile. If such a mode of construction is really essential, there is an end to hospital building in this country, for at the present price of land it would be impossible to find money enough to house a tithe of the sick in our large towns. Our own belief is that this extreme separation of the sick has not been proved to be essential, and, provided there be no direct air communication between one ward and another, and that all emanations from the wards are brought immediately under the scattering and oxidising influence of the wind, there is little risk of one patient infecting another. At least, it rests with those who say there is danger to prove their case. Has there ever been a clear instance of scarlet fever, for example, being blown across a street from one house to the house opposite when there has been no communication between the inhabitants? Are any zymotic poisons definitely known to be blown about in this way? When one considers the instantaneous and enormous dilution to which air from a room is subjected by the wind directly it escapes from the window, it is very hard to believe that there can be any necessity for placing one-storey pavilions a hundred feet apart. Yet this is what Dr. Wylie insists upon, and without giving us any sufficient reason for a dogma which might, if accepted, simply paralyse the hand of charity by asking it to perform impossibilities. Many hospitals are unhealthy, we believe, through faulty organisation and administration rather than faulty construction, and we would remind Dr. Wylie that there are those who would say that a patient with erysipelas might infect another patient in a pavilion a mile off, provided the latter were attended by the same surgeon, got his food from the common kitchen, or the nurse attending him had any intercourse with her fellows. We very much regret seeing so diligent and painstaking an author running into extremes, and we would ask him before bringing out his second edition to back his more important assertions with facts and figures. It is not enough merely to assert that the pavilions of Lariboisière Hospital are too close together. The reader wishes for some scientific facts, not merely the second-hand opinions of so-called authorities, which will tend to prove that the assertion is a true one. In large towns where land is costly it is very desirable to know how close together we may safely place pavilions containing sick. We cannot believe that the isolated hut, half a mile from the doctor and the kitchen, is likely to be accepted as the hospital of the future until it is definitely proved that more convenient modes of construction are absolutely not justifiable.

MR. ALDERMAN SHAW attended the last meeting of the committee of the Barnsley Hospital and Dispensary, and handed in a deed conveying to the trustees upwards of four acres of land, containing valuable beds of coal. He also informed the committee that he had bequeathed £600 by his will, in case of his death before the deed could legally take effect.

THE LANCET.

LONDON: SATURDAY, JANUARY 12, 1878.

AT the meeting of Convocation of the University of London, on January 15th (Tuesday next), a Supplemental Charter will be submitted, which, if passed, will admit women to degrees in all faculties; and between women and men no difference will be made except that the former will be excluded from seats in Convocation. This charter is sent down by the Senate, not at the instigation of Convocation, but as an outcome of the annoyance with which Convocation received the news of the adoption by the Senate of the Russell-Gurney Act. As, in spite of all that has passed, many graduates are ignorant of their chartered rights, we need not apologise for repeating that women could not be admitted to degrees without the consent of Convocation, until the Russell-Gurney Act came into existence. The University Charter gives to members of Convocation a share in determining whether the constitution of the University shall or shall not be changed; and, this being the case, can we wonder that graduates of all shades of opinion on the women's question have resented the action of the Senate—action taken hastily and unexpectedly, and without even the formality of discussion? The Senate has itself to blame if privilege and the admission of women become mixed up at the ensuing meeting of Convocation; but we hope that the members of the latter body will, while maintaining their privileges, forget the continued existence of the Russell-Gurney Act, so far as to record their votes with that independence and dignity which men who have made the reputation of their University cannot afford to abandon. An accidental Act of Parliament ought never to have been snatched up by the Senate, and we cannot for a moment believe that the Senate does not share this opinion; for it, like the outside world, must be convinced that Parliament would, as we have previously mentioned, never have granted it powers which contravene the privileges given by charter to Convocation, had its eyes been open to the exact nature and bearings of the Russell-Gurney Act.

We are sorry that the University of London has become so immaturely mixed up with the woman's question, and we confess that we find further regret in the conduct of the Senate in the dispute which has arisen in consequence. No one can look back at the history of the University for 1877, without finding much to deplore. The Senate adopted the Russell-Gurney Act without notice to its members, and without regard to its own votes on the women's question; and its unexpected and uncalled-for action at once excited surprise, and even grave suspicions as to the fairness of its policy. The Senate, in defence, pleads votes of Convocation which it had condemned by large majorities, but such plea is certainly no excuse for its adoption of a permissive bill, which was thrown at its feet, and which deprived Convocation of its legitimate claim to be heard on one of the most important questions touching the constitution. We will not discuss the many adverse interpretations put on the action of the Senate—with justice in our view; but we cannot refuse to call attention to some excuses made for the Senate, which may be found in a possibly inspired article in the *Spectator*—its consistent supporter—of January 5th. There it is distinctly stated that one of the chief reasons why the Senate has been induced to prefer a new charter to procedure under the Russell-Gurney Act, is the fact that two eminent lawyers had agreed that the women admitted to degrees by this Act would also by it be admitted to Convocation. This delicate consideration of Convocation by the Senate may, in the eyes of some, have a strong recommendation, but to us it seems that excess of delicacy which seeks to cloak remissness in large matters by increased zeal in small. In the same article it is asserted that "many medical and other graduates, not averse to the granting of all degrees to women, held it derogatory to the medical faculty that the new policy should be initiated with medical degrees alone—that they should be made, as it was politely suggested, the *corpus vile* for the trying of this doubtful experiment." So the Senate fell back on the Supplemental Charter, and so far has deferred to the wish of Convocation! We sincerely trust that another sentence in this article has the unanimous approval of the Senate. "They (the Senate) admit that any mode of action which carries the popular body with them is for the best, and they will probably never evince the slightest disrespect for the feelings of that body." We do hope that the Senate will support these statements, which, though not applicable to all conditions and states, are especially applicable in the case of the London University, where the majority of the Lower House has never manifested a desire for unreasonable and fanatical changes. But the logic of the *Spectator* would, we think, scarcely have met the approval of the philosopher who first exposed the *petitio principii* fallacy, for it assumes that the Senate "have taken a wise and salutary step," and then says that Convocation "would show jealousy and want of dignity" in refusing the same. And it is even asserted that Convocation should not be influenced by "considerations so trivial" as those which have been raised as regards privilege and constitutional rights during the last nine months! We are bound to deprecate such attempts to mislead Convocation in its vote. We declare that nothing would give us more pleasure than to have a fair and open vote on the question of the admission of women to degrees, and we believe that such vote would prove the mistake which the Senate of the University of London has made. But, as we have said, it is the senatorial majority and its supporters who make the opportunity of such vote impossible. The medical graduates who, in numbers reaching nearly three hundred, protested against the admission of women as detrimental to the University, and their supporters among the faculties of Laws and Arts, cannot but be irritated by such considerations as we have indicated; yet we hope that this irritation will not prevent them from speaking and recording their votes with that dignity, freedom, and consciousness of right-doing which made the extraordinary meeting of July last memorable in the annals of the University. The position of these graduates, and the good they have done for the University, entitle them to a voice in the dispute, had neither Charter nor Russell-Gurney Act existed. A most unjust attempt has been made to prove that the "aristocratic

party" (the Senate) is willing to act on enlightened principles, while the "democratic party" (the Convocation) has voted against the same. To anyone who knows the University and its working, such absurd comparisons must appear simply ridiculous.

If women are to be admitted to the degrees of the University, and if Convocation (as the Senate has repeatedly affirmed) is in favour of such admission, why has the Senate clung so lovingly to the Russell-Gurney Act, which concerns the admission of women to medical degrees only? Let the Senate itself give the answer, and let Convocation insist on being answered. We venture to think that no one can charge us with unfairness in all we have written on the London University, and the troubles which the rash adoption of a permissive and previously obscure Act of Parliament has brought upon it; we have not hesitated to warn Senate and Convocation alike, and have invariably advocated an honest policy, believing that diplomacy is of no advantage in the settlement of the dispute. We are sorry to think that the Senate has been for some time back essentially "diplomatic." Its method of argument seems to consist in this: "If you (Convocation) will agree to do this, we will agree to do that"—a line which may have its value in a village at a general election, but certainly not worthy of an important University. Outside the walls of the University, it is not unusual to hear the assertion that, "as the Senate has virtually dropped the Russell-Gurney Act and submitted the question of the admission of women to Convocation, the latter body ought, in deference to the Senate, to vote in favour of the Supplemental Charter." This is the argument of conciliation with a vengeance! Is it a matter of surprise, seeing the Senate itself also adopts this method of reasoning, that Convocation is far from being conciliated? We desire to speak plainly now that this body has, for the first time in its history, the chance of voting deliberately on the main questions. Its votes previous to 1877 carried no weight—the fault lying with itself, with the neglect of their rights by members of Convocation. At the meeting of Tuesday next (January 15th) its votes will be of immense consequence, and on this account we trust they will be as explicit and as free from the risk of misinterpretation as possible. The more "ifs" and "ands" prevail, the more will the University become embittered. As far as our opinions are concerned, we hope that Convocation will refuse to admit women to degrees, as the Senate has proposed; we hope that its vote will be sufficiently strong to settle the ephemeral question which, to the great detriment of the University, the Senate has endeavoured to make perennial. And it is clear that the men who have made the University must have a share with the Senate in the settlement of this question. This right no permissive Act can overturn, and we trust that members of Convocation will exercise it with that high sense of independence and responsibility to which we have already referred.

WHATEVER may be thought of Captain CALVER'S report on the state of the Thames, it is impossible to overlook the significance of the fact he recalls to recollection—namely, that with a population of 3,500,000 in connexion with the outfalls of the main drainage system, the daily discharge of sewage, using that term broadly, into the Thames is not less than 120,000,000 gallons, from which the Captain, rightly or wrongly, infers that "423,412,000 cubic feet, or twenty-two days' discharge, represents the aggregate amount of sewage in the oscillating section, being about a fifth part of the whole contents, of the river within the same limits below the level of ordinary low-water." "This vast mass of polluted water," continues Captain CALVER, "eight miles long, 750 yards wide, and four feet and a half deep, charged with offensive matter, both fluid and solid, moves up and down the channel *four times daily* between Gravesend and near to Blackwall, dropping its burden wherever a reduction in the rate of the current, or still water, may favour deposit." There is considerable difference of opinion as to the percentage of excreta in the sewage as a whole. Captain CALVER gives as the mean of several analyses "3900 tons per day, or 1,425,000 tons per annum, as the amount of excreta sent into the river from the outfalls." We are not, of course, prepared to adopt this estimate; but, discounting the result by a large percentage, the net total is sufficient to cause considerable anxiety.

It is a fortunate circumstance that a belief, well or ill-founded, to the effect that the bed of the river is becoming coated to an inconvenient extent with the deposit of sewage should have claimed for this very grave subject that attention which its importance in a general sense has failed to attract. The economic question involved, arising out of the waste of sewage, is of transcendent moment to the community, but with this we have only a secondary concern. Looking at the matter from the sanitary point of view, it is impossible not to feel that the situation is eminently unsatisfactory. Notwithstanding the protestations of Sir JOSEPH BAZALGETTE, who is, of course, deeply interested, we have no hesitation in asserting that the expedient of casting sewage into a tidal river, and trusting to the ebb to carry it away, is unworthy of a scientific age, discreditable to the engineering skill of the day, and, in an economic sense, utterly wasteful. It is not correct to say there is no way out of the difficulty. The experiment made at Crossness was not, except in the opinion of Sir JOSEPH BAZALGETTE, a failure; and the worst that gentleman had to allege against it was that it had not been proved to be commercially successful. We venture to think it would be worth a considerable outlay simply to obviate sanitary evils. The method of that expedient is, as we have said, wasteful and unsafe. If a process which has been shown to be practicable offers the advantage of minimising the waste at the same time that it prevents the accumulation of sewage, surely it would be reasonable to take advantage of the half loaf offered us instead of refusing the boon because it does not fully establish the balance of success as a commercial venture. At the present moment we throw all our sewage into the sea, or endeavour to do so, and in the attempt run the risk of blocking up the river and poisoning the water.

The method tried at Crossness offers the undoubted advantage of depurating as much of the sewage as can be submitted to its treatment. There is no question as to this fact. The only drawback alleged against it is that the experiment is not at the outset self-supporting. It must ultimately be profitable, but at first some subsidy would probably be necessary. There was nothing worse to say

against the process tried at Crossness, and which has been applied with even better results elsewhere. It instantly removed all trace of odour, and the analyses of competent chemists showed that the effluent water was for practical purposes pure and perfectly innocuous. In some extraordinary way the completion of the experiment was prevented. After three months the works were closed, in face of a statement that if a second period of three months was allowed, the promoters of the scheme would show that the works might be made remunerative. We venture to think that in common fairness the experiment should be repeated.

The population has a great and pressing concern in this matter, and considerations of regard for the success of a particular system, however natural, should not be allowed to stand in the way of the public interest. If a process exists which will answer the purpose without calling for considerable outlay, it is a public duty to give it the fullest and most exhaustive trial. This has clearly not been accorded to the method tried for three short months at the southern outfall, and the test should be reapplied before the project is abandoned. There is, perhaps, hope that another opportunity may be offered to the promoters of the last experiment if, after the treatment they received, they are willing to make a second trial under less irksome restrictions. The Metropolitan Board of Works can scarcely be anxious to find itself saddled with the permanent obligation to make good the defects of the main-drainage system, whatever it may feel bound to do for the removal of existing obstructions to the river course. The position in which the Board is now placed may possibly induce that body to lend its influence in favour of another experiment, which must of course be understood to be exhaustive. Meanwhile Parliament would do wisely to institute a full inquiry, by a commission composed of engineers and medical men. And we would suggest that for the elements of the commission the Government should look beyond the limits laid down by precedent, so that the subject may be lifted out of a groove, and the questions involved discussed without prejudice.

THE relations subsisting between the consultant, physician or surgeon, and the general practitioner are a matter of growing interest to the profession and the public. The increased wealth of the community implies an increase in the number of persons anxious to be advised medically only by persons in the rank of consultants. It is not perhaps at first sight clear that such persons should not do as they please; but a little reflection will show that they are neither numerous enough nor reasonable enough to be entitled to be much considered, and that, in fact, the relations of the different classes of the profession must be defined and determined without much reference to them. This question is an old one in the profession, as old, in fact, as the existence of the three grades of physician, surgeon, and apothecary, or, as we should say now, physician, surgeon, and general practitioner. There is now, by the way, a fourth class in the profession, the existence of which cannot be ignored—we mean the specialists. Whatever may be our objection to specialism, we must make this admission, that specialists have educated the public to a higher sense of the value of medical services than used to obtain. Sometimes, indeed, this estimate of the value of service by specialists goes much too far, and fees are demanded which bear no proportion to the value of the service, or the means of the patient, and which tends seriously to prevent the general practitioner from receiving his just remuneration. Not unfrequently it has the effect of sending the patient to a hospital to be treated on terms of charity, which we regard as a great abuse. It is not easy to form an exact estimate of the proportion of the numbers of the different classes in the profession as compared with the proportion of the numbers in former times. It may be assumed, however, that the number of those who would like to practise as consultants is larger than in any former time, that the competition is correspondingly greater, and the tendency of consulting practice to degenerate into a higher kind of general practice is accordingly increased. This tendency is greatest perhaps in provincial towns, where the number of pure consultants is small, and the line of demarcation between them and general practitioners is undefined. We know of towns where men of the highest ability and standing may be consulted, and even retained as family practitioners in ordinary cases, and for fees which practically lower the public respect for medical opinion. Even in London there is reason to believe that such an evil is far from common. When a physician of distinction allows himself to visit a person of rank for a fee for which he would not see a merchant of like means, and not larger than should be given to a high-class general practitioner, he, however unintentionally, is guilty of conduct which lowers the public estimate of medicine and damages the profession.

Far more might be done by physicians to discourage the practice of seeing patients alone. We are not arguing for the abridgment of the liberty of patients or of the public in this matter. It is a great principle of our creed that this should be respected; but it is equally one of our principles that consultants and general practitioners ought, as a rule, to work together, and not separately. In virtue of this principle a consultant should discourage those who view him as a general practitioner—first, by refusing to visit patients except in consultation with such a practitioner; and, secondly, by charging such fees as worthily represent the claims of medicine in an opulent and highly civilised community. There is a wholesome rule, we believe, at the bar that the opinion of Queen's Counsel can only be taken in consultation. There is, unfortunately, no corresponding rank among physicians; but there are those who by the favour of Royalty, and by the distinction of reputation—in and out of the profession—are in a position to establish a rule which might do much to elevate the public estimate of medicine. And they can do this only by working as much as possible in the way of consultation and co-operation. It is not too much for the profession to expect that the consultants whom it recommends should restrict themselves as far as may be to consultation in the higher sense of the word. It is certainly intolerable that a physician should take advantage of a consultation to wean a patient from his ordinary adviser. No consultant can know so much about a patient and his circumstances as a general practitioner does, and he is working at a great disadvantage when he is working separately. There is only one apparent excuse, indeed, for such separate action, and that lies in the limited means

of the patient. We should be sorry if the day should ever come when the highest advice in the profession should be inaccessible to a patient really needing it, on the score of limited means. To do the highest consultants justice, they are almost always amenable to humane considerations, and, on the representation of the ordinary medical adviser, willing to abate their well-deserved fee. But here again we are simply illustrating the advantage of the general practitioner and consultant working together. On medical grounds such co-operation is equally to the advantage of the patient. The conclusion which we reach is, that consultants should, as far as they can, studiously avoid acting as general practitioners, and this particularly in two ways—first, by constantly referring cases back to the medical practitioner under whose care they have been, and secondly, by upholding the fees for which they may be consulted. Further, there is a very general feeling that consultants at the top of the professional ladder, without refusing to see suitable cases at the old fee, might reasonably protect themselves and generously and beneficially help those below them by raising their fees proportionately to their own reputation, to the increased wealth of the age, and the increased value of medical services.

WITHIN the last few days a rumour has found its way into the columns of periodicals, that should be well informed, to the effect that there is a scheme under consideration which includes, among other revolutionary proposals, one for abolishing the office of Director-General of the Medical Department of the Navy. This would, indeed, be a retrograde movement, not in the least degree likely to help the Admiralty in ridding itself of the incubus which makes the sea service, so far as its medical branch is concerned, unsatisfactory. We can scarcely credit the statement that such a scheme has been seriously entertained by the present First Lord, who is a man of sense and an admirable tactician. Meanwhile, against the proposal, from whatever quarter it may come—possibly one which has had cause to regret the neglect of injunctions given by the Medical Director-General of the Navy, and perversely disregarded,—we must enter a strong protest. It is a necessity of the situation that the medical branch of the naval and military services alike should have a professional head, capable of representing the interests of the surgeons, and of acting as arbiter between the teachings of science on the one hand, and the demands of authority on the other. Every Englishman must feel a deep and keen interest in the condition of Her Majesty's Navy; and the efficiency of that arm—our first line of defence, and the only protectorate the home country casts around the colonies—is, in a marked degree, dependent upon the aid of medicine. No apology can, therefore, be needed for expressing a strong opinion on the subject of naval medical reform. If we seem to look at the matter from a somewhat exclusively professional standpoint, that is because we are deeply impressed by the lessons of the past, which show, only too clearly and sadly, the utter hopelessness of any expectation that combatants and navigators will yield deference to the teachings of science unless they are compelled, by the rank and authority of the medical officers in charge, to submit to their counsel. Nothing can be safely left to the instinct of intelligence, and it would be incurring a grave responsibility in the face of recent experiences to sanction the credulity of faith in lay wisdom. The recognition of what is due to the medical officer as a professional man must be the cardinal point of any effectual reform. It is in the interests of the country, not less than those of a particular class of citizens, we make this appeal to the sagacity and enterprise of a new First Lord.

The medical authority must be paramount in regard to matters of health in the navy, as elsewhere. So far from the office of Director-General being abolished, its function needs to be developed and extended. There should be no intermediary authority between the professional head of the Medical Department and the executive. The recommendations—*orders* they should be—issued by the Director-General ought to be treated as final, subject only to the approval of the First Lord. The practice of submitting them to the filtering process of revision by the Board is one of those clumsy expedients of red tape, worthy of the worst development of the Circumlocution Office, which must be set down as inscrutable and inexplicable. The opportunity offered by the circulation of this strange rumour may be utilised to insist upon the need of a fuller recognition of the professional character of the office some wondrous intellect has, it would seem, proposed to abolish. It cannot be tolerated that the medical opinion of a responsible officer should be reviewed and discussed by laymen, from no other standpoint than that of tradition and service routine. To ensure that vitality, without which the organisation cannot be efficient in working, it is indispensable that the official head of the Medical Department should be free to bring the highest professional judgment to bear on the solution of problems essentially technical and therefore soluble by medical wisdom alone. If the hint is taken, as we hope and believe it will be by the First Lord, there will be no reason to regret the circulation of a rumour which, as we have said, is past belief.

CHOLERA is reported to have broken out at Jeddah and Mecca. The news has not yet been confirmed, but unfortunately there is great probability of its accuracy. Since 1875, epidemiologists in this country have had an uneasy feeling that we were about to witness another diffusion of the malady beyond the boundaries of India. This feeling seemed to receive confirmation from the ascertained spread of the disease eastwards, into districts of China, and probably also into parts of the Eastern Archipelago, and northwards into Beloochistan and Affghanistan to the frontier of Persia. Although no facts were known of extension to the countries westwards, yet it was to be inferred that what had been observed to the north and east of India might also be taking place at the west, and the recent carriage of the disease by a French transport from Saigon into the Red Sea, gave some countenance to this view. This happened when the tide of the Mecca pilgrimage flowing from India and the Eastern Archipelago was in full flow. Hence, there is a great probability that the reported appearance of cholera at Mecca, and its seaport Jeddah, will prove correct.

Europe should stand, in respect to this threatened calamity, in a different position from that in which it has ever stood before under a similar prospect. The International Sanitary

Conference, which sat at Vienna in 1874, came to a common understanding as to the principles of international hygiene which should govern the different nations of Europe in view of another threatened epidemic of cholera. It is incumbent upon the various European Governments to adopt these principles loyally, and carry them out. These principles, while specially calculated to avert or greatly modify the vexatious and futile practices of quarantine, set forth clearly the conditions, as tested by experience, which would afford the greatest protection against the introduction of the pestilence into a country from without. That it would be possible to exclude the disease wholly from Europe by any means of quarantine when it becomes epidemically diffusive is the merest figment of the imagination. Measures to prevent the needless introduction of cases into a country have their value, but the only true protection rests in internal measures of precaution.

Annotations.

"Ne quid nimis."

POOR-LAW MEDICAL MEMORIAL.

WE have been asked to afford an opportunity to medical men who are not at the present time servants of the Local Government Board, but who agree with the memorial now in course of signature, to co-operate in the movement. The only way open to us is to create a supplementary list of names, which will be appended to the petition. We propose to divide this addendum into two parts: the one for signatures of men who have at some previous time held appointments under the Board; the other for the names of medical practitioners who, although not members of the service, have had opportunities of observing the working of the system extant, and desire to see the reforms we suggest inaugurated, or an inquiry of the nature recommended instituted. It is not to be expected that the representations of the supplementary list will have the same weight with the President of the Local Government Board as those of his own officers, but it is probable, we think, that Mr. Sclater-Booth may not be unwilling to hear the voice of the profession on a subject in respect to which the whole body of practitioners are deeply interested, and, in the case of those who are not in the service of the Board, without any other personal feeling than one of sympathy with the poor and their brethren who are engaged in the duty of administering medical relief. If those who desire that their names should be added to the list, in either of these senses, will send letters of authority, on or before the 15th inst., we will append them to the supplementary papers as indicated. The number of names of "medical officers" already to hand is very considerable. We will add any which may be sent to this office up to the 15th, at which date the memorial must be closed for presentation.

THE NEW SUPPLEMENTAL CHARTER OF THE UNIVERSITY OF LONDON.

THE Supplemental Charter to be submitted on Tuesday next to Convocation of the University of London, and which is to admit women to the degrees of that University, will be by this time in the hands of members of Convocation; but we may, perhaps, save the time of busy professional men if we abstract the main sentences of the Charter from the midst of the usual legal formulæ. The preamble of the Charter explains that the University of London consists of the chancellor, fellows, and graduates; that the Senate has the power of examining candidates and of conferring degrees in various branches of learning; and that "the Convocation of the University has the power of accepting any new or supplemental charter for the University," and "of consenting to the surrender" of any charter; and that "the Senate shall have the power of accepting or surrendering" any such charters. As bearing directly on the issues now involving the University in trouble, it may be mentioned that the wording of this preamble is distinctly to the effect that the Convocation has the right of initiating changes of constitutional character, and that, as occurs in higher assemblies, the Senate has the right of *veto*—a state of things which we entirely approve of, but which the Senate during the last year has completely reversed. And the further reading of the new Supplemental Charter shows that with Convocation rests the right of initiation. The Supplemental Charter which gave the Senate power to grant certificates of proficiency to women about ten years ago was, it is said, "duly accepted (from the Crown) by the Convocation of the University, with the consent of the Senate." And now it is proposed, with the consent of Convocation, to surrender this Charter, and to adopt one which shall admit women to the degrees of the University. "All the powers and provisions relating to the granting of degrees shall henceforward be read and construed as applying to women as well as to men"; but it is further provided "that no female graduate shall be a member of Convocation" unless such Convocation votes to the contrary.

THE PATHOLOGICAL SOCIETY.

AT the annual general meeting of the Pathological Society, held on Friday, the 4th inst., the Report of the Council was read by the hon. secretary (Mr. Wagstaffe). The report alluded to the fact that during the past year the average attendance of members had exceeded that of previous years; whilst the total number of members on the roll of the Society was 601, thirty-two being new members. Five had been removed by death, and eight had retired. Reference was then made to the setting apart of evenings for the exhibition of specimens of visceral syphilis, the success of which had induced the Council to devote some meetings of the present session to the exhibition of specimens illustrative of diseases of the lymphatic system, including lymphadenoma and leukhæmia. The other special subjects dealt with during the past session were alluded to, and the special committees on pyæmia and on the arterial changes in Bright's disease received attention. The financial statement showed that, owing to the largely increased number of plates, the expense of the Transactions had been unusually large, but some of this had been liberally borne by Sir William Gull and Dr. Sutton. On the motion of Mr. John Wood, seconded by Mr. H. G. Howse, the report and balance-sheet were adopted, and ordered to be printed in the Transactions. The election of officers for the ensuing year was then proceeded with; and a vote of thanks to the retiring vice-presidents and other members of the council was proposed by Dr. Tatham, seconded by Dr. F. Taylor, and acknowledged by Dr. Hare. A cordial vote of thanks to the retiring secretary, Mr. Wagstaffe, was then proposed by Dr. Hare in a eulogistic speech; and seconded by Mr. J. Wood. Dr. Hare mentioned that he had been informed by Mr. Wheatley that in the last three periods of three years there had joined the Society 71, 75, and 108 members respectively. The great increase in the last period was largely due to Mr. Wagstaffe's personal exertions. The President added, that during Mr. Wagstaffe's tenure of office the laws of the Society had been revised, and much additional labour thrown on the secretaries in connexion with the Pyæmia Committee.

The following is the list of officers and members of council elected:—President: Dr. Murchison. Vice-Presidents: Drs. Greenhow, George Harley, Moxon, Hermann Weber; Messrs.

Thomas Bryant, G. W. Callender, T. W. Nunn, and Thomas Smith. Treasurer: Mr. Hulke. Honorary Secretaries: Dr. Douglas Powell and Mr. Morrant Baker. Council: Drs. Cayley, Coupland, Goodhart, Gowers, T. H. Green, Greenfield, Ralfe, Thorowgood, Theodore Williams, John Williams; Messrs. William Adams, Bellamy, Butlin, Godlee, Howse, Jeremiah McCarthy, William MacCormac, Henry Morris, A. T. Norton, and Wagstaffe.

A CAUTION TO THE SICK AND NURSES.

IT must have happened in the experience of most practitioners that a patient appeared unaccountably worse shortly after the administration of a new remedy, which at the outset seemed to produce satisfactory results. There is a possible explanation of this untoward experience, to which it may be worth while to direct notice. The practice of increasing the dose of a remedy without the consent or knowledge of the practitioner when benefit appears to be received, is by no means uncommon even among persons who should be well informed. It is not known or it is forgotten that the same drug often produces totally different effects in diverse doses, and when one has been exhibited with success it is dangerous to change to another without a perfect knowledge of the action of the medicine in all its gradations of strength or quantity. A point to notice is that the smaller the dose in the first instance the greater the risk of increasing it. For example, if a medical practitioner has prescribed the sixth part of a grain of some powerful drug, it is a serious, and may be a perilous, experiment to take one-third. It is not worth while, perhaps, to speak of degrees of folly in respect to this wholly reckless practice, but it may serve a useful purpose to point out that the greatest danger besets the slightest departure from the precise terms of a medical prescription, and those who are wise will, for themselves and others, avoid incurring the risk.

MORTALITY IN LONDON AND PARIS IN 1877.

THE rate of mortality during 1877 was in London, as in the whole of England and Wales, remarkably low; it did not exceed the proportion of 21·9 per 1000 of the nearly three millions and a half of persons estimated to be living within the metropolis. Only twice since 1839 has the annual death-rate in London been lower than in the year just past. In 1850 the rate was 21·0, and in 1872 it was 21·5, per 1000. Compared with the national death-rate, the rate in London showed a larger excess last year than it did either in 1850 or 1872—a result which was probably due to the epidemic prevalence of small-pox throughout the year. Although small-pox was prevalent, however, the death-rate from the seven principal zymotic diseases did not exceed 3·5 per 1000, and was slightly lower than in 1876, when it was equal to 3·6. The excess of deaths from small-pox was balanced by the unusually small number of deaths referred to diarrhœa and scarlet fever. The deaths from fever were 1249, and, although very considerably below the average number in the preceding years, showed an increase upon the 1176 returned in 1876. London mortality has in recent years showed a decline slightly exceeding the rate of decline which has prevailed in the whole of England and Wales. During the six years 1865–70 the annual rate of mortality in London averaged 24·4 per 1000, while in the six following years the average death-rate declined to 22·9; thus the mortality in London was 6 per cent. lower in the more recent than in the earlier period of six years. As we have before stated, the death-rate in 1877, under the influence of exceptionally favourable meteorological conditions, further declined to 21·8 per 1000.

The sanitary condition of Paris, judged by its mortality statistics, does not compare favourably with that of London. During 1877 the rate of mortality in Paris averaged 24·6 per 1000 of its estimated population, instead of 21·9 as in London. Thus, in equal numbers living, 113 persons died in Paris to each 100 persons dying in London. In other words, more than five thousand persons died during 1877 in Paris who would have survived if the death-rate had not exceeded that in London; on the other hand, if the Paris death-rate had prevailed in London, the deaths in 1877 would have exceeded those which actually occurred by nearly 10,000. The fatality of typhoid fever in Paris throughout last year, at a rate which was double that which prevailed in London, and the epidemic fatality of diphtheria, more especially in the last quarter of the year, afford additional evidence of the unsatisfactory sanitary condition of Paris, which may safely be inferred from the excessive death-rate from all causes. Defective as is sanitary organisation in London, there can be no question that it is at present still more defective in Paris.

THE FATAL ILLNESS OF KING VICTOR EMANUEL.

OUR correspondent at Rome writes:—"Of the multitudes who saw the Re Galantuomo driving on the Pincio or through the Roman streets, few could have anticipated that he would so soon have been prostrated by a deadly malady. To his immediate *entourage*, however, it had become apparent that he bore about his bluff and hearty person the "malarial cachexia," and that any ailment, particularly of the respiratory organs, would find him ill-prepared to resist its attack. On Saturday, the news of the death of General La Marmora, his old companion-in-arms and trusty counsellor, proved a real shock to him. He rose from table on its arrival, and was observed to be "out of sorts" for the rest of the day. On Sunday he was unable to give audience to the Prime Minister, and his intended starting for Turin that day had to be abandoned. Dr. Saglione, his body-physician, with the approval of Prof. Baccelli, of Rome, telegraphed to Turin for Dr. Bruno, and that gentleman, immediately on his arrival, held a consultation with his colleagues. His Majesty was found to be labouring under right pleuro-pneumonia, and was immediately placed under active treatment. By 1 o'clock on the Monday morning the dyspnœa and consequent restlessness were such that venesection had to be practised, after which the general distress was visibly relieved, and sleep for half an hour at a time was procured. The bulletin issued at 8 A.M. by Drs. Bruno, Baccelli, and Saglione indicated a slight rise in the febrile symptoms, but no marked malarial complication. At the consultation at 2 P.M. the fever was found to have decreased, the pleuro-pneumonia to have assumed a limited area, the general condition to have become easier, and the malady to be running a normal course. A bulletin in accordance with these symptoms was issued, and the prognosis at the hour of this despatch (9.30 P.M. of Monday) was decidedly favourable." The melancholy event which has proved the issue of the case occurs at a crisis in the course of political events of great significance.

BOOKS USED BY THE SICK.

THERE is a great deal of reading among convalescents, and caution is necessary in regard to the use made of volumes after they have been allowed to lie about in sick chambers and on beds during the recovery of cases of fever, or even of severe catarrh. This matter is too often overlooked, and there is reason to suspect that communicable diseases are not unfrequently transmitted from house to house by means of the books lent for general reading. It would be well if attention could be directed to the need of precaution. We are not sanguine as to the success of any method of disinfecting books; the leaves lie so close

together, and their interspaces afford so complete a shelter for any particle of morbid matter, that it can scarcely be possible to rid a volume, which has been exposed to the atmosphere of an infected apartment, of the poisonous débris it has picked up. Something, however, might be accomplished by instituting a rule at the libraries which should at least recognise the existence of a need for caution. In process of time the public mind might be impressed with the reality of the risk, and take measures for the avoidance of what is an undoubted source of peril. The example might be set by the custodians of village and school libraries. If the spread of diseases could be thoroughly investigated, it is not impossible that the source to which we point might be found to be concerned in the production of many an unexplained calamity.

THE LORD CHANCELLOR AND HOMŒOPATHY.

FRIDAY last will be marked a red-letter day by every loyal homœopathist, for on that day the Lord High Chancellor laid the foundation-stone of the Hahnemann Convalescent Home at Bournemouth. As this is one of a very few occasions upon which any person of conspicuous intellectual merit has been known publicly to avow a belief in the fantastic doctrines of Hahnemann, we are willing to ascribe Lord Cairns's presence at the ceremony rather to his keen and active sympathy with whatever he conceives to be a good work than to a serious conviction of the truth of Hahnemannism. On his estimate of Hahnemann, and of the influence of his teachings, his Lordship could scarcely expect or wish more value to be placed than he himself would attach to opinions of those ignorant of the principles of law on the difficult question of Legal Reform. The scattered few, who cling to a belief in the "Heaven-inspired apostle of Homœopathy," will be widely shocked at the estimate formed of him by some of his disciples. While Dr. Nankivell allowed that Hahnemann cannot now be held an infallible teacher, and confessed that his theories and statements will not bear the scientific light of the present day, Lord Cairns advanced the crushing statement that "in the direct benefit which his system has contributed, *and in the indirect benefit it has conferred in stimulating the growth of other systems*," Hahnemann will hereafter be looked upon as one of the greatest benefactors of the age. Had Hahnemann, in any degree, even indirectly, stimulated the growth of other systems of treatment, by which we understand his Lordship to mean orthodox or rational medicine, we should gladly allow his claim to be regarded as a benefactor of his race. As it is, the only glory hereafter reserved for Hahnemann is a chapter in the large History of Errors.

MEDICAL CHARGES.

"AN overwrought patient" having "a bone to pick with his doctor," writes to *The Times*. "He would have told his grievance directly to the doctor, only that the doctor is a very good fellow," and in the same social position as the "overwrought patient." The grievance is, indeed, soon told. It is this—that the doctor does not give dates and items in his bill, but "fleeces him under the simple and comprehensive heading, 'Medical Attendance.'" If his tailor were to make out his bills so he would have it out with him, but, for the reasons given, he cannot so treat the doctor, who therefore gets an unfair advantage over him.

This is a short grievance, and perhaps the only necessary answer to it is that the doctor is not a tailor, and that the items of a doctor's bill do not admit of such definite statement as those of a tailor. No doctor declines to state generally the principles on which he charges and the amount of his fee for a visit, or for a special service. All that remains for the "overwrought patient" to do is a simple act of multiplication, by which he will arrive roughly at the amount of the doctor's bill. If the "overwrought patient" means that the doctor takes advantage of the vague heading to charge for visits not made or services not rendered, then it is evident that he has been overworking his imagination, and needs, not items, but a little rest and a little more faith in a "very good fellow" when he has the luck to meet with him. A good doctor's bill is not to be judged of by items of happily forgotten visits. We pity the man who wants "soothing" by such particulars. The bill is to be judged of as a whole; whether it be five guineas or twenty is a secondary matter if it represents the services of a "very good fellow," who is therefore honest and kind, and withal technically educated and capable of rendering services to an "overwrought patient" which cannot be defined in separate items, as a coat or a pair of pantaloons can. Medical charges should be paid as fees, spontaneously, and on the spot. To expect long bills for them, as well as long and anxious attendances, is not reasonable, certainly not generous.

ST. BARTHOLOMEW'S HOSPITAL.

THE facts connected with the alleged outbreak of small-pox in this hospital are as follows:—A man, having on his body a few recent marks, subsequently suspected to have been those of modified small-pox, was admitted into one of the surgical wards on Dec. 19th, with crushed fingers, three weeks after an illness. Exactly twelve days afterwards one of the patients in the ward was attacked with modified but genuine small-pox, and within four more days four other cases occurred. The suspicion that the man with crushed fingers was the source of infection was strengthened by the circumstance that four out of five persons seized with small-pox were so far in communication with him that they were attended by the same dresser. The cases of small-pox were each removed, as soon as recognised, to the Small-pox Hospital, and no fresh case has occurred since Saturday last. The two wards in which the cases appeared have been strictly isolated, and will be thoroughly disinfected as soon as the patients are sufficiently convalescent to be discharged to their homes. The restriction which was placed on the visiting of patients in the hospital has been withdrawn, with the concurrence of the medical staff, except in the case of the two wards in question.

CATS.

GREAT attention has of late been lavished upon dogs and their maladies. The cats are now making their claim to a share of notice by ugly expedients. Within the past week more than one instance has been recorded in which creatures of this class have assailed man and done dire mischief. The cat is a neglected and ill-used animal, towards which the feelings of the head of the creation do not seem to warm with any glow of kindliness.

They are, or have the credit of being, unsociable, the embodiment of selfishness, and devoid of one redeeming trait to link them to man. Children are almost invariably fond of cats, which is something in their favour; but, setting this aside, there is scarcely a word that can be said in their praise except that they are a less evil in a house than the mice or rats they are kept to catch. There is, indeed, an old prejudice that a fireside looks more homely with the grace of a cat, but this notion is daily losing ground. It will be a sorry day for the species when the persuasion, if it may be so called, dies out, because it cannot be doubted that the cat, although a long-suffering animal, is a most formidable brute when fairly roused. Apart from the mischief these creatures may do by lying upon young children for warmth, and suffocating them, they are by no means to be despised as enemies. When excited or stirred to anger it is more easy to defend the body from the direct attack of a dog than to repel the sly and sudden onslaught of a cat.

It is, moreover, a mistake to suppose that there is no danger in the bite or the scratch of one of these animals. There have been abundant and melancholy proofs of the peril of contracting hydrophobia from cats. The danger is scarcely less than that which attends an injury inflicted by a dog. This should be borne in mind, and if the consideration should have the effect of diminishing the number of cats maintained, or rather kept without any adequate provision for their support, the population will be the gainers.

PUBLIC ANALYSTS.

FAVERSHAM has distinguished itself by refusing to appoint a public analyst. It is strange that local corporations should court notoriety by declining to discharge a known duty. There ought to be some penalty imposed upon refractory communities who persist in evading the law. Their indulgence in self-will is not a noble pastime, and it has a demoralising effect on the population at large. There is too much permissive legislation just now, and these exploits of local folly, pitiful as they may seem, not only make the right of self-government ridiculous, but go far to show that the Legislature has been ill-advised in trusting to the spirit of local enterprise, which it is so much the fashion to plead as a reason why as much as possible should be left to local effort. Possibly the sage councillors of Faversham may think better of their petty resistance to the impulse of common sense. We trust, for the credit of an otherwise enterprising borough, this may prove to be the case; but the public lesson to be learned from the episode is that the shortest and best way to ensure the carrying out of a good law is to make its adoption compulsory, and not to count on more public spirit in a community than may suffice to make it do what must be done with as little local extravagance as possible, and as much success as can be secured at the smallest outlay.

THE SMALL-POX EPIDEMIC IN LONDON.

THE epidemic of small-pox in London, which commenced in the autumn of 1876, and showed more or less fatal prevalence throughout 1877, does not yet give signs of dying out. No less than 2544 fatal cases were recorded within the metropolis during last year, of which 1192 were registered in the first and 828 in the second quarters; in the last two quarters of the year the deaths from small-pox were 252 and 272 respectively. During September and October both the deaths from the disease and the cases under hospital treatment showed a marked decline; but an increase set in again during November and December, which, according to the most recent weekly return of the Registrar-General, still continues. The deaths from small-pox in the nine weeks ending November 3rd were but 100, whereas in the following nine weeks ending 5th inst., the fatal cases had increased to 239. In the last week under notice—that ending 5th inst.—the deaths from small-pox, which had been 31 and 29 in the two preceding weeks, further declined to 26, of which 16 occurred in the Metropolitan Asylum Hospitals and 10 in private dwelling-houses. After distributing the fatal hospital cases it appears that 4 of the deceased small-pox patients had resided in Islington, 4 in Stepney, 4 in Mile-end Old-town, and 3 in St. Pancras. A well-defined local outbreak of small-pox has occurred in East London since the beginning of November, which has shown the greatest fatality in Stepney and Mile-end Old Town. A remarkable feature of this outbreak in East London, and one which undoubtedly bears a most intimate relation to its fatality, is the small proportion of the deaths that have occurred in hospital. In Mile-end Old Town, for instance, thirty deaths from small-pox were registered during the nine weeks ending the 5th instant, of which only five occurred in hospital. This proportion forms a striking contrast to that which prevailed in the far larger district of Lambeth, where of 22 fatal cases 15 were recorded in hospital. The danger which the whole of London incurs from the apathy of any of its numerous disjointed and almost irresponsible local sanitary authorities, affords the strongest argument in favour of the reorganisation of the sanitary government of the metropolis.

The recent returns from the Metropolitan Asylum Board Hospitals supply the strongest evidence of the seriously increasing prevalence of small-pox in London, which must shortly affect the weekly registered number of deaths from the disease. The number of small-pox patients in these hospitals had declined in the beginning of October to 137, after which they increased steadily to 316 and 309 in the last two weeks in the year, and on the 5th instant they had further increased to 374, a higher number than at any time since the middle of August last. No less than 129 new cases were admitted to those hospitals during the week, against 85, 84, and 83 in the three preceding weeks; the highest weekly number of admissions in any previous week as far back as the middle of July was 85. The cases admitted to the Highgate Small-pox Hospital during the week ending last Saturday were 17, when the hospital contained 36 patients, against 26 at the beginning of the week.

While small-pox prevails and its fatality in London is increasing, the nineteen large provincial towns dealt with in the Registrar-General's Weekly Return, show an immunity from the disease which is very remarkable. During the nine weeks ending the 5th instant only three fatal cases of small-pox were registered in those nineteen towns, having a population of more than three millions and a half of persons; one occurred in Liverpool, one in Birmingham, and one in Sheffield.

THE MOTIVES OF CHARITY.

IT has been computed that the congregations of the Church of England subscribed nine times as much at the last collections to the Metropolitan Hospital Fund as the Congregationalists, eighteen times as much as the Jews, and nearly thirty-six times as much as the Roman Catholics! Making all needful allowance for the difference of numbers in these several religious communities, we are still at a loss to account for the great disparity of results. There must be some radical difference in respect to the motives of charity. Is it possible that the philanthropic interest of certain sects is narrowed by considerations of creed? This is an ungracious explanation of the result, which we are at a loss to understand or accept, but the fact is sufficiently remarkable to set men thinking, and we shall be glad to find that some more flattering solution of the mystery is forthcoming as the issue of careful deliberation. There might well be some little emulation in respect to a form of charity so essentially unsectarian and cosmopolitan as the succour of the sick. If these remarks, which we offer in no cavilling spirit, should give rise to a desire to prove that there is a rivalry of benevolence amongst the sects we shall not regret giving publicity to a calculation which, making, as we have said, every allowance for difference of numbers, has occasioned us no little astonishment.

HARVEIAN SOCIETY'S CONVERSAZIONE.

THE annual meeting of this Society was held on the 3rd instant. The rooms have recently been redecorated, and present a pleasant appearance. The usual Council meeting was held before the conversazione, and it was found that the finances were in so healthy a condition that the Society is in a position to afford grants for scientific work.

In the absence of the ex-president, Mr. Carr Jackson, who retired during the session in consequence of impaired health, but is now recovering, the chair was taken by Mr. W. F. Teevan. By the exertions of the secretaries, Mr. Henry

Sewill and Dr. Fothergill, and a committee, the meeting was of an unusually attractive character. Telephones communicating between different rooms of the building were in action all the evening, and microscopic objects of great interest, paintings, and other works of art were also exhibited. A new feature was added in the form of some first-rate instrumental music. The attendance was much larger than was ever known before, and among the visitors were the President of the Royal College of Physicians, Dr. J. C. Bucknill, Mr. Curling, Dr. Crichton Brown, Dr. Langdon Down, Dr. Lockhart Robertson, Dr. Broadbent, and other prominent members of the profession. The following is a list of the newly elected officers of the Society:—President: Dr. Grailly Hewitt. Vice-Presidents: Mr. W. B. Owen, Dr. Hughlings Jackson, Dr. John Easton, Dr. Symes Thompson. Treasurer: Mr. Henry Power. Hon. Secretaries: Mr. Henry Sewill, Dr. Milner Fothergill. Council: Messrs. George Eastes, Stamford Felce, Gant, George Field, Carr Jackson, N. H. Stevens, Drs. Farquharson, Meadows, Percy Boulton, Cheadle, Bantock, and Wiltshire.

THE TOTTENHAM SANITARY ASSOCIATION.

THE fourth annual report of this Association has just been published, and contains an interesting illustration (for persons not inhabitants of the village) of an instructive experiment made by the Sanitary Authority on fever production. In the spring of last year the street ventilators in a part of the district were carefully closed up by the authority, and an outbreak of typhoid followed, fifty cases occurring, and seven proving fatal. It does not appear why this experiment was tried; it would seem to have been a very superfluous one, having regard to the previous history of typhoid in Tottenham. But for the Association this experiment would no doubt have passed unrecognised and unrecorded, and the results of the action of the Sanitary Authority credited to the season and the locality. The event demonstrates the value of such an Association, and the need, in the best interests of the place, for its permanency.

SCAVENAGE.

THE Corporation of Southport has just issued a very carefully prepared report, drawn up by its medical officer of health, Dr. Henry H. Vernon, as to the system of scavenage for the borough. The 30,000 population of the borough, it would appear, live habitually among a six weeks' accumulation of their own filth, this filth weighing in round numbers 5000 tons, and exposing a surface of 14,000 and odd square yards, or, in other words, two acres and a quarter. Dr. Vernon passes in review the different systems of so-called dry methods of excrement removal, showing clearly their advantages and disadvantages. That Southport has an abundant water-supply is certain, and the town can obtain an outlet for its sewage into the sea. Clearly with such advantages Southport should have a water-closet system. Dr. Vernon is of this opinion, and we quite agree with him. The report is well illustrated with drawings relating to dry systems of excrement removal, and it will prove of interest to other authorities than the authority for which it is prepared.

HOW TO CULTIVATE SMALL-POX.

IF the reports which reach us from various sources are correct, Harwich has been cultivating a local epidemic of small-pox with singular success. It would seem from these reports that small-pox appeared in Harwich in the second week of October last. The medical officer of health reported to the Sanitary Authority the necessity of some provision for isolating cases, if the disease were certainly to be held in check, and any serious extension prevented; whereupon the Authority proceeded to discuss the question, but not with reference to the immediate exigency, but with reference to the *permanent* provision of hospital accommodation for infectious diseases. In the meantime, while the Authority discussed, the disease spread, the medical officer being helpless, until it assumed alarming proportions, attacking the shipping in the port as well as the population of the town. The Port Sanitary Authority, which includes the Corporation of Ipswich, moved, it is said, some cases from the shipping to hospital at Ipswich, and it is now stated that the disease has shown itself among the population of that town. The work of vaccination and of disinfection seems to have been performed in a perfunctory fashion, and, altogether, matters appear to have been allowed to take their own course. The medical officer of health has resigned in disgust. At the eleventh hour the Sanitary Authority has ordered an iron hut for temporary hospital purposes from Birmingham (London, it is to be presumed, not being equal to such a demand), and an outcry is being made for the Local Government Board to step in and advise the Authority to do what it is patent on the surface it should have done long ago, and what it alone is competent to do.

MANCHESTER INFIRMARY.

OUR correspondent at Manchester writes:—"The new Board of Management of the Manchester Infirmary, during its six months' tenure of office, has shown much activity and a firm resolve to economise. It is to be hoped that they will not sacrifice efficiency to economy. It is rumoured that, amongst other changes, the medical superintendent of the charity, Dr. Reed, is likely to leave. He has done so much for the institution that his services should not be allowed to pass without some public recognition of his work. To him, more than to anyone else, any improvements in ventilation and internal arrangements made within the last ten years are due, and, without hyperbole, he may be said to be the author of the Convalescent Hospital at Cheadle, and the Fever Hospital at Monsall, the two most important dependencies of the infirmary. The general view of the new board is in favour of retaining the infirmary upon its present site, and with this end in view plans to improve the sewage and ventilation of the building will forthwith be put in execution, while the probable substitution of a permanent pavilion for one of the existing sheds will give a warranty to the public that the future site of the infirmary is to be the old one."

PRINCE BISMARCK AND THE TOBACCO-TAX.

IN the financial exigencies of Germany, intensified by the costly military and naval arrangements incident to her peculiar situation in Europe, it is said that Prince Bismarck lays special stress on a tax on tobacco. The idea is an excellent one, and worthy of the Prince. True, in spite of tobacco, Germany is one of the most capable nations of Europe. But if the tax upon it can be increased so as to diminish the consumption of the article, it will be so much the better for the health, and especially for the eyesight, of the Germans. We have no extreme views on the harm accruing from tobacco. Some people are probably the better for it in moderation, but the growing use of it among boys and youths is an evil to be discouraged alike by physicians and statesmen.

DEATH OF DR. STOKES, F.R.S.

WE regret to have to announce the death of Dr. William Stokes, F.R.S., of Dublin, which took place on the 7th inst., at his residence, Carrick Breac, Howth. We shall next week give a full account of the life and labours of this eminent physician.

THE late Mr. John Freeland, of Nice, has bequeathed the handsome legacy of £40,000 to the Western Infirmary of Glasgow, to be applied to the erection and equipment of an additional wing to the institution. This will enable the directors materially to enlarge the institution for the benefit of the afflicted, and thus add a greater field for clinical instruction to the large number of students who come to Glasgow for their medical education. It is considered very probable that a strong extra-mural school will soon be formed near to the University, the students of which will doubtless be in a great measure drafted to the Western Infirmary, so that Mr. Freeland's bequest is, from a medical point of view, singularly opportune.

THE official statement of the proceeds resulting from the collections on Hospital Sunday at Liverpool, with the details of their distribution, has been published. It appears that the sum collected amounted to £10,019 16*s.* 10*d.*, which has been disbursed by grants as follows:—To the Royal Infirmary, £2991 10*s.*; Royal Southern Hospital, £1495 15*s.*; Northern Hospital, £1302 15*s.*; Dispensaries, £965; District Nursing Society, £675 10*s.*; Ladies' Charity and Lying-in Hospital, £675 10*s.*; Infirmary for Children, £482 10*s.*; Eye and Ear Infirmary, £386 10*s.*; Homœopathic Dispensary, £241 5*s.*; and the remainder amongst the smaller medical charities of the town.

THOSE concerned should be again reminded that the Canal Boats Act comes into operation this month. It has been computed that 100,000 men, women, and children, are employed in the river and canal traffic of this country, all of whom will be affected by the measure. That the Act will work infinite good among the canal population may be safely predicted. Among no class of the community has there probably been more flagrant immorality, and such utter defiance of the rules of health and of decency as amongst the people now taken in hand by the Legislature. That they should have been so long neglected is not very creditable to the nation.

THE annual death-rate of London, which had been equal to 26·0 and 25·9 per 1000 in the two previous weeks, rose to 27·6 in the week ending January 5th. This excessive rate was owing principally to the fatality of diseases of the respiratory organs, which accounted for 535 deaths—a number exceeding the corrected weekly average by 76. Of the zymotic class of diseases, measles and whooping-cough were the most fatal, there being attributed to them 104 and 89 deaths respectively.

THE Crown Prince of Austria, attended by Dr. Karl von Scherzer, Professor Manyer, Major Enhembacher, and Dr. Roth, visited the Hunterian Museum on Tuesday afternoon last. They were received by Professor Flower, F.R.S., the Conservator, who explained some of the valuable contents of the collection, in which the Prince was extremely interested, and after remaining nearly three hours took his departure, promising to repeat the visit shortly.

UPON the representation of H.R.H. the Commander-in-Chief, it has been agreed between the Admiralty and the Horse Guards that when it proves convenient to send a military medical officer in charge of troops on the return voyage home, the senior naval officer at the station of embarkation may, in his discretion, direct the medical officer of Her Majesty's ship, on board which the troops are received, to take the detachment under his charge.

WE gather from the *Surrey Advertiser and County Times* that some amount of scarlatina still prevails in the Kingston district. In New Hampton it has been found necessary to close one of the public schools for a period of six weeks.

THE annual meeting of the Birmingham and Midland Association of Medical Officers of Health was held last week, when the president, Dr. Bond, delivered an interesting address dealing with the difficulties experienced in carrying out sanitary reforms in rural districts. The meeting approved of the resolutions drawn up by the Metropolitan Association with regard to the compulsory registration of disease.

THE report that yellow fever had broken out among our troops at the hill stations of Jamaica is contradicted. One death only had occurred, and there was no reason to fear an epidemic of the disease. The hill stations of Jamaica are usually considered very healthy, and to be pre-eminently adapted for sanatoriums where sick soldiers might recuperate.

JUDGING from the annual reports of the visiting justices of county asylums, a considerable increase of lunacy has taken place in the following counties: Dorset, Devon, Somerset, Wilts, York, and Essex. Increased accommodation for lunatics appears to be generally required.

WE learn from the *Sanitary Journal for Scotland*, that an outbreak of enteric fever has occurred in Newton Green, Ayr. The dairies in the neighbourhood are suspected, it being alleged that the drainage arrangements of several of them are very faulty.

AT the quarterly meeting of the directors of the Naval Medical Compassionate Fund, held on the 8th inst., Dr. J. W. Johnston, Inspector-General, in the chair, the sum of £72 was distributed among the various claimants.

AT the meeting of the Manchester Medical Society, held on Wednesday, January 9th, Mr. Frederick Ashton Heath, senior surgeon to the infirmary, was elected President for the ensuing year.

SIR DOMINIC CORRIGAN, Bart., has again been re-elected as representative of the Queen's University in Ireland on the General Medical Council.

BATHS AND BATHING.

I.

THERE are not many cities which offer so few opportunities for bathing as London. Rare as these are, they are mostly of quite recent origin, for a very moderate recollection can travel backwards to a time prior to the establishment of the first of the public "baths and washhouses." The ornamental water in Hyde-park and, we believe, in Victoria-park, is available for bathing at certain hours of the day, but with this exception the great mass of the poor can scarcely be said to have any accommodation for swimming, since the Thames, hemmed in as it is on either side by wharves and embankments, is not available for such a purpose, even to those who could venture to plunge into the sewage which ebbs and flows between Battersea and Barking. Old London boasted of some few bathing establishments, but none of these were of any size or pretensions. The oldest of these, the old Roman Bath in Strand-lane, was supposed to be fed from the neighbouring Holy Well which gave its name to the street, which is also known as "Booksellers'-row." This bath is an undoubted Roman structure, and is built of Roman tiles with thin layers of cement. Among other old London baths may be mentioned the baths in Finsbury known as St. Agnes le Clair; the celebrated bath in the City-road known as the Peerless Pool; and last, but not least, the cold bath at Clerkenwell giving its name to the prison known as "Coldbath

Fields." Many were the springs to be found in former times in the valley of the Fleet river in its course from the northern heights to join the Thames at Blackfriars. It is difficult for the imagination to picture Cowcross and Clerkenwell as rural districts, and Bagnigge, as a country place, rather difficult to find. At Bagnigge were two springs, one cathartic and one chalybeate, which were discovered rather more than a century since by a certain Dr. Bevis. About a century earlier a Mr. Sadler had discovered springs which became known as Sadler's Wells. There were springs also in Spa Fields and in St. Pancras, and at Chad's-well, near Battle Bridge, this district serving, indeed, as the fashionable watering-place for the whole of London. With the exception, however, of the cold bath in Clerkenwell, none of these waters were used for bathing. They were employed exclusively for drinking and various amusements being found necessary to purge the melancholy of the patients, the character of the tea-garden was very soon added to that of the spa, and the company which clustered round the healing wells was none of the most respectable. The mineral springs of London can hardly be said to exist any longer, unless we except the chalybeate spring in Kensington Gardens, which few persons have the curiosity to stop and taste.

Notwithstanding the high pitch of civilisation and luxury to which we have attained, there are but few signs in London of any return to popularity of what one may almost call the lost art of bathing. A telegram which appeared in the daily papers at the beginning of the present week to the effect that Prince Bismarck had spent six consecutive hours in a warm bath for the alleviation of an ordinary cold may have the effect of turning men's minds to the combination of therapeusis and luxury which warm water is capable of affording. Of all nations of antiquity the Romans seem best to have appreciated the value of, or, at least, the sensuous pleasure to be derived from, immersion in water. Among the Greeks and Romans also the value of swimming as an aid to athletic training had been very early recognised, but it was only in the later days of the empire that Rome saw the erection of those large bathing establishments which are a source of wonder and delight to the modern traveller. He who has not seen the baths of Caracalla at Rome can hardly have a just idea of the place which bathing occupied in the daily life of the Roman citizen. The ruins of this huge establishment, which is said to have been able to accommodate some 1600 bathers, with its vaulted and panelled ceilings, its hundreds of broken columns, its ruined chambers and cubicles, and its rich mosaic decorations, cannot but fill the mind of the spectator with wonder at their magnificence and extent. The bath filled in Roman society the same position as the club does with us, and it may, perhaps, be some satisfaction to think that the often talked of New Zealand tourist will wonder as much at the ruins of Pall-mall as we do at the baths of Caracalla. The thermæ of the ancient cities of the Roman Empire included not only hot-air baths and large piscinæ, or swimming-baths, but also rooms for conversation and for public discussions. Gymnasia, and, in some cases, race-courses, were also included in the establishments, the bath being, in fact, the general lounging place for the idle Roman youth, within the precincts of which sufficient diversion might be found to while away many of the long hours of his vacant time.

That bathing, as an art, was well understood by the Romans there can be no doubt, and the method of bathing was a subject which was deemed worthy of the serious consideration of Celsus and other physicians. The times for taking, and the periods for remaining in, the various kinds of bath, whether of hot air or vapour, or of hot, tepid, or cold water, were all definitely specified, and the relation which exercise and bathing should bear to each other was closely studied.

That the accessories of bathing were well understood is evident from the lists of unguents and pomades which were employed in lieu of soap, and from the various strigils and other implements which the bather wore at his girdle.

So strongly was the necessity for bathing impressed upon the Roman mind that wherever we find remains of former Roman colonies we are almost sure to discover evidence that a bathing establishment was an integral part of it. We have already alluded to the old Roman Bath which still exists in London, and our own city of Bath, as is well known, owes its origin to the Romans who, attracted by the hot spring, built a city, which they called Aquæ Solis. Wherever there are hot springs one is almost certain to come across evidence of previous Roman occupation. Although the Romans understood the great advantage (commercially, if not therapeutically) of utilising water which had been heated in the bowels of the earth, it must not be supposed that they did not understand most completely the science of heating water and buildings. In the great Roman baths the system of flues and furnaces is singularly elaborate, and in a drawing discovered in the Thermæ of Titus at Rome one is enabled to see how thoroughly the whole subject had been studied. The luxury, effeminacy, and immorality which were engendered by, or at least accompanied, the immoderate use of warm bathing had become in the fifth century of our era so great a scandal that the practice of habitual bathing was condemned by the early Christians, and when added to this the furious Hun, the Goth, and other barbarians sacked Rome and destroyed its aqueducts the once magnificent thermæ of the imperial city sank into oblivion.

Evidence is not wanting to show that on the Continent, at least, there is some indication of a revival of the art of bathing. Bathing of some kind or another has at all periods been practised in Europe as a therapeutic measure. Erasmus makes mention of vapour-baths as existing in many cities in the fifteenth century, and we all know that Vichy was sufficiently established in the seventeenth to be visited by no less a person than Madame de Sevigné. In England our ideas of the eighteenth century, its manners, customs, and costumes, are inseparably linked with the city of Bath, where the fashionable world repaired for the ostensible purpose of bathing; and we have all read the description of the huge hotels for the accommodation of bathers which Sir Francis Bond Head found at Schwalbach more than forty years ago, and which he so graphically describes in his "Bubbles from the Brunnen of Nassau." In more recent times, within the last twenty years, there has been a reunion of magnificence and luxury with bathing; and it has been found that, provided only there be sufficient amusement and comfort for patients, crowds of fashionables will find it convenient to be ill. The Kurhauser at Wiesbaden, Homburg, and Vichy are establishments which would hardly have disgraced Caracalla or Diocletian; and the dear old sleepy city of the west of England is showing signs of reanimation, and has built a range of baths the completeness and luxury of which would astonish Beau Nash or Madame d'Arblay.

SANITARY SCIENCE IN GERMANY.

II.[1]

THE second section of Professor Sander's work[2] deals with water in its hygienic relations. He commences by pointing out the wide distribution and the important part played by this element in the economy of nature, quoting Hoppe Seyler's dictum that all organisms may be said to live in water, and, indeed, in flowing water, since by its agency all the circulation, absorption, and distribution of nutriment is effected in the body; and as water is essential to the maintenance of the health of the body, so the water of a country may be regarded as its life-blood, and equal importance should be attached to its purity. He refers in terms of approbation to the great labour performed by Frankland and Morton in making their extensive series of analyses of the waters of Great Britain, and takes their statements as the basis of his own conclusions. He considers the points of importance to be (1st) the quantity of solid constituents, (2nd) the amount and kind of organic matters. In Germany the favourite mode of obtaining a rough approximation is by the so-called

[1] Part I. appeared in THE LANCET of Dec. 8th, 1877.

[2] Handbuch der öffentlichen Gesundheitspflege. Von Auftrage des Deutschen Vereins für öffentlichen Gesundheitspflege. Verfasst von Dr. Friedrich Sander, Oberarzt des stadtischen Krankenhauses in Barmen. pp. 500. Leipzig: Hirzel. 1877.

"chameleon test," or a solution of permanganate of potash, which, however, does not afford any information in regard to the quantity of organic matter present, but only how much oxygen is required to oxidise what may happen to be present. The method preferred in England is that of Wanklyn and Smith, which essentially consists in converting the organic nitrogen into ammonia, the quantity of which can be estimated. The defect of this plan is that different substances do not form ammonia with equal readiness. Fleck has suggested the use of a solution of oxide of silver in alkali, but the method of organic analysis given by Frankland is really the only one that is satisfactory; though even this only gives the relative quantity of carbon and nitrogen. (3rd) The quantity of matters in suspension, the determination of which may be assisted by the use of the microscope.

Professor Sander then proceeds to consider the various kinds of water. He divides these into rain-water, spring-water, soil-water, and open water-courses. The quantity of foreign material in rain-water varies from 20 to 50 milligrammes in a litre. A considerable portion of this is common salt; and Frankland found that rain collected near the sea-coast, at a height of 100 feet, contained as much as 218 milligrammes in one litre. Ammonia and sulphuric acid are never absent, but the amount of organic matter is very small. Prestel has found that in rainbecks the water remains clear as long as rain continues to fall, but in times of drought a kind of decomposition takes place, the water acquiring a foul smell and taste. After a time, however, even though no fresh rain falls, the water clears again, the gases are given off, and water-lice and fleas (daphnia, &c.) are found in it, the presence of which shows that it is capable of supporting animal life. In regard to spring-water the author has little to say, except to point out the great influence of geological formation on the composition of the impurities of water. Soil-water (*grundwasser*) is treated of at much greater length. This is, he says, not *per se* distinguishable from spring-water, but near the habitation of man it assumes quite special qualities. It there becomes mingled with excreta and with the waste products of industry, till, in some instances, as in the soil-water examined by C. Schmidt, from being originally pure (only 448 milligrammes of residue), it rose to 1166 milligrammes, and, in one instance, to nine times the original amount. This increase, however, he remarks, is not so much due to the introduction of new material as to an increase of a part of those substances which are naturally present in rain-water. The depth of a spring, of course, exerts a great influence on its purity; and, although the presence of fissures communicating with the surface will render the deepest well impure, as a rule, a depth of 100 feet secures against contamination. The best waters come from the red sandstone, sand and chalk formations, because they are porous, and contain much air in their pores, thus facilitating oxidation. The numerous investigations of Frankland, as well as a large number of analyses made in Germany, by Wibel and others, show conclusively the almost constant contamination of well-water drawn from shallow surface-wells, varying in depth from twelve to thirty feet; and it is not surprising to know that the London wells of this nature are the very worst that have been examined. A curious point has been made out from the analyses of wells at Munich, that the amount of contamination is not the same throughout the year, but that it undergoes regular periods of increase and decrease, the residue in one that showed the greatest variation amongst ten wells varying from 400 to 24,600 milligrammes, and in the one that showed the least variation from 590 to 880 milligrammes. Sometimes the soda, sometimes the potash salts, are in excess, but since 1868 the soda salts have been uniformly in excess. It has been shown that these remarkable differences do not bear a constant ratio to the rainfall, and further investigations are needed to explain it. In his remarks on river-water, Dr. Sander again has to take English rivers as a type of all that is bad, and signalises the Irwell at Manchester as one of the worst. This river, which is about forty yards wide, contains at its source seventy-eight millionths of solid residue, below Manchester it contains 556 millionths, putrefies and ferments in summer, and is so bad that it contains no animal life. In regard to filtration, Dr. Sander entertains a very low opinion of the ordinary carbon filter; he prefers Bischop's (of Glasgow) spongy-iron filter. A section is devoted to the spread of disease by means of water. The presence of the actual organic poison causing disease has not, he observes, been found in any water. Neither chemistry nor the microscope affords any sure ground of determining what is deleterious and what harmless. Schönbein's experiments, he thinks, approach nearest to this end. This investigator has shown that, like all ferments, vaccine, the poison of gonorrhœa and syphilis, have the peculiarity of decomposing ozone into water and oxygen, and that if these poisons are subjected to boiling they lose this power. Clear cistern-water containing many bacteria is capable of effecting this decomposition, but also loses it on boiling. Schönbein therefore concludes that we have in ozone a means of discovering the presence of a ferment in water. As might be expected, he gives various instances in which it is probable that water proved the medium of communication of cholera and typhus poison.

In the section on the various kinds of water-supply, Dr. Sander observes that the hardness of the water or the quantity of lime salts it contains is of no importance in a hygienic point of view; its only disadvantage being that it leads to the loss of much soap, and is therefore unfavourable to cleanliness. The real point to be attended to is the amount of organic impurity, and this should never exceed fifty-millionths; the water should contain no living organisms, and there should be no appreciable amounts of ammonia or nitric acid. The qualities of good drinking-water are lightly sketched, and the quantity required for a household as given by Parkes and by Bürkli (whose estimate is somewhat higher than that of Parkes) compared. Professor Sander considers an abundant supply to be afforded by 150 litres per head, one-third being used for household purposes, one-third for watering the streets, and one-third for trade or industrial purposes. He strongly recommends the constant supply on account of the much greater purity and constancy of temperature—a point of no small importance in the summer months.

Dr. Sander then proceeds to consider the influence of soil-water on the development of disease, and shows how important are the physical qualities of the soil and its permeability to air and water. This chapter is the more interesting because it gives a succinct account of the investigations of Pettenkofer, which are more complete than any that have as yet been conducted in England, though we may not be able to endorse all the conclusions of the author. The retention of the rainfall by the soil is dependent for its amount on the season, the climate, and the vegetation, and varies greatly. Thus in England it amounts on the average to 68, in France to 35, and in the interior of Germany (where 36 per cent. of the rain falls in summer) to 52 per cent. of the rain. Evaporation, of course, takes place to a much greater extent in summer than in winter, whilst the presence of woods tends to equalise the amount of moisture in the soil all the year round by preventing the descent of about 20 per cent. of the rainfall to the ground in winter, and by permitting free evaporation in summer. The nature of the soil exerts considerable influence on its retentive power; the larger the interspaces between the particles of the earth the greater the quantity of water it can retain. The interspaces of quartz-sand amount to 40, of loam to 51, of humus to 64, and of pure clay to 65 per cent. of its volume; and a measure filled with dry fine sand, well shaken down, takes up about a third of its volume of water without overflowing. He observes that, notwithstanding the greater porosity of clay as compared with sand, it is less permeable than sand on account of the much greater fineness of the pores. The moisture of the soil again is dependent on the height of the level of the soil-water, which is by no means dependent on the amount of rainfall. Numerous borings have been made in Germany to determine the rise and fall of the level of the soil-water. Thus in Berlin alone there are 314 bores, traversing the town in twenty lines, and observations on these as well as on others at Munich have shown that at a certain distance below the surface in both these places a water-tight layer exists, which has many inflections, sometimes being near the surface, sometimes far removed from it, and which presents depressions and inclinations that exert a remarkable influence on the movement of the soil-water, as well as upon the height of its level.

In regard to the temperature of the soil, a large number of facts are in course of accumulation. The daily variations of temperature penetrate, it appears, from three to five feet, and those due to seasonal influence do not extend beyond thirty feet, and even at ten feet do not exceed half a degree. Sand, as De Chaumont has found, absorbs and retains the largest amount of heat, and if taken at 100, loam takes up 76—66, chalk 61, and humus 49. The soil is warmer beneath houses than in the open country, and also wherever decomposition is going on.

Just as the pores of the soil are permeable to water so are they permeable to air, and we owe to Pettenkofer the best information on this point. He inserted leaden pipes to the required depth into the soil at Munich, and both sides of the Elbe at Dresden, and attached to them small aspirators of very simple construction. The air was examined every fourteen days. In all these places the amount of carbonic acid gas was at its minimum from January to May, and then rose steadily to its maximum from July to November. There was a diminution in the amount of oxygen which corresponded with the increase of the carbonic acid. Whilst the amount of oxygen in the free air of Dresden amounted to 209·6 parts in 1000, the amount of that gas contained in the soil air at 19·5 ft. deep amounted to between 147·7 and 170·0 parts; at 13 ft., to between 156·7 and 178·1; at 3 ft. 9 in., to between 161·2 and 202·2 parts. It does not appear that as yet any practical application can be made of the amount of carbonic acid gas in the soil as Pettenkofer originally hoped might be the case, for Fleck has shown that this is due not only to the relative quantity of decomposing substances present, but also to the permeability of the soil, since when the pores are fine and the texture close, interchange of gases does not take place readily, and carbonic acid is apt to accumulate. Much further investigation in this department is required, since remarkable differences, not explicable on the actually occurring seasonal changes of temperature, have been observed to occur in different years. The importance of the inquiry is undoubted, since there are instances on record in which from the bursting of a gas-pipe the contained gas traversed no less than thirty feet of soil, and, making its way into the interior of houses at night, has proved fatal to the inmates; showing, as Pettenkofer well remarks, that our houses in winter, when doors and windows are closed, ventilate themselves not only through the walls, but also through the soil. The extent to which the soil may be rendered impure by excreta is well shown by the instance just quoted, as well as by an important example at Basel, where the soil was contaminated with arsenic from the refuse of an anilin dye factory to a depth of upwards of twenty-seven feet, whilst springs hundreds of feet distant were so impregnated that serious injury was inflicted on those who drank of them, a litre containing two centigrammes of arsenic. Now Pettenkofer estimates that each person either excretes, or leads to the production of, per annum 75 lb. of fæces, 942 lb. of urine, 198 lb. of kitchen refuse and rubbish, and 33 lb. of wood ash, where wood is burnt as fuel. To this total of about 1150 lb., and which is equal to ten or twelve times the weight of the individual, must be added all the water used for household purposes, which is loaded with organic matter, and which he estimates at 30 litres per diem; giving a grand total of 17,000 or 18,000 lb. per annum. How much of this penetrates the soil it is difficult to say, since this is in great measure dependent on the presence of canals, rivers, drains, &c., to carry it off; otherwise, it is simply thrown out and allowed to percolate through the soil. The existence of privies, still so common not only in Germany, but in England too, is, as he says, a sad evidence of the prevalent want of culture and knowledge of the general laws of hygiene; and he gives a most alarming table from the researches of Erismann, where it appears that a privy ten feet square, filled to the height of six feet with excrement, gives off 12 lb., or 5·67 cubic metres, of carbonic acid, 4·5 lb., or 2·67 cubic metres, of ammonia, 0·072 lb., or 0·02 cubic metre, of sulphuretted hydrogen, and 15 lb., or 16 lb. or 10·43 cubic metres, of carbon compounds, giving a total of above 45 lb. of unwholesome products, or 18·79 cubic metres, and at the same time oxygen is abstracted from the surrounding air. If to this cause of contamination of the soil we add those from burial-grounds and from manufactories, we find reason to be surprised that disease is not more rampant and fatal than it is, and at the resistent forces that the system must possess to enable it to withstand the constant action of such potent generators of disease.

ROYAL COLLEGE OF SURGEONS, ENGLAND.

AT a special meeting of the Council, on Wednesday last, Mr. Luther Holden, one of the Vice-Presidents, was unanimously re-elected a member of the Court of Examiners.

At the quarterly meeting held on Thursday, before the minutes of the meeting of Dec. 13th were confirmed, a long discussion was held on those parts which related to the Bill for the registration of dentists. A resolution was proposed by Mr. Hancock, and seconded by Mr. Barnard Holt, to the effect, that while the Council approved of those parts of the Bill which referred to the registration of licentiates in dentistry of the College of Surgeons of England, Edinburgh, and Ireland, and of the Faculty of Physicians and Surgeons of Glasgow, it could not sanction the proposal to register any persons practising dentistry without a legal qualification or licence, because such registration would place unqualified persons on the same footing as licentiates. This motion was supported by seven members only, and was therefore lost. The proposal of Mr. Hancock to abolish the registration of students at the College was carried. Mr. Marshall was appointed representative to the Committee of Reference, *vice* Mr. Simon, resigned.

THE MEDICAL ASPECTS OF THE WAR.

THE cold is reported to be intense throughout the entire area occupied by the contending armies both in Bulgaria and Armenia, and hardly a night passes without sentries being frozen to death. Serious frostbites are numerous among the soldiers; but, notwithstanding the difficulties interposed by the snow and the cold, the Russian troops under General Gourko have pushed on, and Sophia, after some severe fighting, is now occupied by them.

The Turkish prisoners who have reached Bucharest, some 8000 in number, are suffering much from frostbite, dysentery, and diarrhœa. Those still on the way there, and who have been exposed to the severe weather, are undergoing even greater sufferings from the same diseases. No proper provision has been made for picking up the stragglers, and when men have fallen out and stopped by the roadside, there they have died frozen. The arrangements for feeding the prisoners *en route* have been defective, and much of their suffering comes from the insufficiency of their rations. Dr. Frazer, the chief of the National Aid Society's ambulance at Bucharest, has been giving aid largely to the unfortunate Turks. Typhus of the most malignant form has broken out among the Turkish forces at Fratesti.

We have been favoured by Lord Blantyre with the following extracts of letters from Erzeroum:—

Dr. J. Pinkerton to Lord Blantyre.

"Erzeroum, Dec. 6th, 1877.

"On the 21st November two Stafford House surgeons arrived, and next day took over a hospital from the Turks. It contains pretty nearly 300 beds, and as this was more than two men could well manage, Fetherstonhaugh asked me to assist them.

"I regret extremely to say that typhus fever has appeared in this hospital. We have at present nine cases, and there are one or two cases of which we are suspicious, but which have not yet declared themselves.

"The hospital consists of two very large rooms. The larger is about 100 ft. by 55 ft., by 30 ft. or more high; the smaller is 65 ft. by 30 ft., by 30 ft. high. In the larger ward are ninety-eight patients. In the small ward are sixty-two beds. Besides these wards there are about sixteen side rooms, which are not nearly so high in the roof, and which contain from five to ten patients each. The hospital was wonderfully clean, and quite surprised me; but there were signs about the wounds, such as pieces of dead bone, which should not have been there. However, I must pay the Turks the compliment of saying that I was agreeably surprised, after all I had heard about Turkish hospitals.

"We had a heavy fall of snow last week, and since then hard frost. There are, it is said, seventy battalions of Russians outside, and other ten battalions are said to be on their way here. The Turkish army is being diminished at

the rate of 200 a week by men falling sick, while only 50 per week are discharged from hospital. People say that now there are 5500 sick and wounded here, and some men who have come in from Kars state that there are 2800 sick and wounded on their way here. However, the Russians must be suffering just as severely from the cold as the Turks."

Dr. Fetherstonhaugh to Lord Blantyre.

"Erzeroum, Dec. 7th, 1877.

"We applied to the Government for stoves for the different rooms, and they have been sent and properly put up. The fires are a great comfort to the patients during the cold nights.

"We have six amputation cases doing well, four upper arms and two forearms. We have no epidemic of any kind; and, in fact, considering circumstances, everything is satisfactory. Fifty-two bales of blankets and jerseys sent by your lordship have arrived, the rest are on the road and are expected daily. £100 also sent by you was advised by telegram to the agent for Imperial Ottoman Bank to-day. It will come in good time, as numbers are in want. There is nothing new to state about the Russians, who have kept very quiet for the last month."

Two branches of the Red Cross Society have been established at Shabatz for the purpose of organising ambulances for the Servian army.

Correspondence.

"Audi alteram partem."

DISCOVERY OF THE INTERMEDIARY HOST OF FILARIA SANGUINIS HOMINIS (F. BANCROFTI).

To the Editor of THE LANCET.

SIR,—In reference to your annotation regarding the helminthological discoveries of 1877, you will, I trust, in justice to an earnest worker, permit me to supply an important item. I allude to the labours of Dr. Patrick Manson.

Through the kindness of Mr. Curling, F.R.S., I received on the 10th of October a reprint of Dr. Manson's Report on Hæmatozoa, published in the sixth part of the *Customs Gazette*, and observing the great interest which Mons. A. Le Roy de Méricourt took in the writings of Lewis and myself in your columns, I at once forwarded to the distinguished Médecin en Chef an abstract of Manson's memoir. What I have now to communicate, however, is even of more interest than the pathological and clinical data supplied by the fifteen cases in which, up to that time, Dr. Manson had "met with the filaria in the human blood."

In a letter from Brisbane, Australia, dated April 20th, 1877, Dr. Bancroft incidentally makes the following remark:—"I have wondered if mosquitoes could suck up the hæmatozoa and convey them to water. They appear to die in water. I will examine some mosquitoes that have bitten a patient to see if they suck up the filariæ.

Whether or not this conception of the possible host-relationship, as between man and mosquito, primarily originated with Bancroft or some other observer I cannot stop to inquire, but certain it is that what Bancroft surmised Dr. Manson has demonstrated to be a fact.

On Friday, the 4th instant, I received a letter from Dr. Manson, dated Amoy, November 27th, 1877. In this letter he announces his discovery of the human filariæ in the stomach of musquitoes that had been feeding on hæmatozoal patients; and he sends me, at the same time, a voluminous manuscript, in which he not only describes all the developmental changes which the parasite undergoes during its residence in the stomach of the insect, but he also supplements the fifteen cases of human hæmatozoa (recorded in the *Customs Gazette*) by giving details of no less than thirty-five additional cases. Not merely so, Dr. Manson supplies me with a mass of valuable statistics in relation to the prevalence of Filaria sanguinis hominis, and to the influences of age, sex, occupation, and so forth.

I consider Manson's discovery almost on a par with the separate announcements of Lewis and Bancroft. It establishes a perfect parallelism as between the genetic phenomena and metamorphoses undergone by Filaria medinensis and Filaria Bancrofti. What, moreover, the Russian traveller and helminthologist, Fedschenko, showed to obtain in the case of Cyclops, considered as the intermediary host of the guinea-worm, Manson has shown to obtain in the case of Culex mosquito. True, there are differences of detail, but both play the *rôle* of intermediate bearer, the little crustacean and the small gnat being alike necessary for the completion of the filarian life-cycle.

I will not venture to demand space for practical comment; but if medical men will only reflect to what extent diseases, hitherto obscure (such as chyluria, elephantiasis, lymph-scrotum, and perhaps leprosy itself), are henceforth to be associated with the bite of a gnat, they will perhaps be not less ready than hitherto to extend a helping hand to those who, at great sacrifice, labour in the field of helminthology.

I am, Sir, your obedient servant,

Portadown-road, Jan. 5th, 1878. T. SPENCER COBBOLD.

P.S.—In reference to my supposed neglect of Wücherer's claims, allow me to add an expression of gratitude to M. Le Roy de Méricourt for his vindication of my conduct in the *Archives de Médecine*. Permit me also to inform Dr. Da Silva Lima that I have published an English version of Wücherer's article, "Ueber die Anchylostomumkrankheit, tropische Chlorose oder tropischer Hypoämie," from the *Deutsches Archiv f. Klin. Med.* In my account of that "amiable and gifted physician's labours" (given in the *Veterinarian* for Jan. 1876), I have added some notice of the part taken by other Brazilian physicians (Moura, Tourinho, and Dr. Lima himself). I have also added Wücherer's account of the "finds," by Rion Kérangel, Monestier and Grenet, Faria, Caldos, and others.

TREATMENT OF STUMPS AFTER AMPUTATION.

To the Editor of THE LANCET.

SIR,—In Dr. Ed. Gaurveau's interesting communication to you last week, there is sketched out one of the first steps towards the simplification of the antiseptic treatment of recent wounds.

The Listerian method of dressing wounds, though marvellous for its brilliant results, is no less remarkable for its manifest inapplicability to the ordinary needs of general country practice. Indeed, as taught and practised in the schools of the day, it is so complicated in its methods, and involves so much troublesome detail and minutiæ in its practical application, as to be virtually useless to the country doctor or military surgeon in the field. To the hospital surgeon, with his staff of competent assistants, it certainly is available, but even there the slightest error or flaw in carrying out its many details may vitiate the otherwise wonderful results.

"Listerism," in fact, now stands before the surgical world more in the light of a splendid demonstration of a law, than as claiming any foothold in the hurry and skurry of every-day surgical practice. Anything, then, tending to simplify the practical application of the principle, must be acceptable.

Dr. Gaurveau's method of applying strips of linen, soaked in the solution of iron, on the face of the stump, and allowing these to get saturated with the blood set free from the tourniquet or Esmarch bandage, is simple enough, and, I have no doubt, will almost always yield perfect results—viz., healing by the first intention. But it seems to me that even this method is unnecessarily complicated, for it is a fact, a fact which may be verified by any surgeon, especially in the country, that all wounds will heal by the first intention if simply dressed in their own blood. Two or three folds of dry fleecy lint placed over the face of a stump, or wound of any kind, except where there is much laceration or loss of tissue, kept on by the usual bandage, is all that is required. The blood, which by the way is plentiful enough, without having recourse to tourniquet, very soon saturates the lint, and coagulating, forms a dry pasteboard-like coating, which completely seals up the wound and places it in the most perfect aseptic condition. By this simple dry method alone we have had invariably healing by the first intention, in amputation of the thigh, in compound fracture of the elbow, in scalp wounds extending from the vertex to the angle of the eye, in numberless amputations of the fingers, and in cases where the fingers have been rudely cut off

by machinery. In each and all there was only one dressing of dry lint, which in some cases was removed at the end of ten days, and in others at the end of three weeks. This simple method has been eminently successful also in the hands of my friend, Mr. Dryland. In a case of secondary amputation of the leg, he removed the first dressing at the end of a week, and found the stump all but healed over, the man being about in a fortnight; and in a thigh amputation, a few weeks ago, a like result was obtained by the same simple treatment. I am not prepared to say that this old-fashioned antiseptic method of treating wounds would be equally successful in hospital, but, undoubtedly, many of the usual methods of treating wounds are faulty in the extreme; for, besides giving unnecessary pain to the patient by too frequent dressings, and taking up the valuable time of the busy practitioner, healing by the first intention, instead of being, as it ought to be, the rule, is the exception.

In cases, on the other hand, where there is *no* blood to form the seal over the wound, a useful substitute will be found in either the Peruvian or Canadian balsam. Dressed with either of these, a dry wound, of any extent, will heal with one dressing, the balsam taking the place of the blood, and forming a stiff antiseptic seal, which, when broken, shows the perfection of surgical art in union by the first intention.

I am, Sir, yours, &c.,
JAMES MORE, M.D.

Rothwell, Northamptonshire, Jan. 7th, 1878.

BRIGHTON.

To the Editor of THE LANCET.

SIR,—Last Saturday's LANCET has an annotation in which is quoted a statement made by Dr. Kebbell, medical officer of health for Hove, in a recent report to his sanitary authority. The quotation is as follows:—"The medical officer of health of Brighton had made the population of Hove under 13,000, *thus making the death-rate higher than that of Brighton.*"

I have written to the Sanitary Committee of Hove, contradicting the statement of Dr. Kebbell. I beg leave to say that I have never put the population of Hove at any figure of my own estimating, except after the method of the Registrar-General. I wrote to the Registrar-General's office in the early part of 1876 asking to be informed what the population of Hove was estimated at. The following is an extract from the answer I received:—"We estimate the population of Brighton Municipal Borough, in Mid., 1876, as you know, at 100,632, and that of the Parliamentary Borough 112,887, at the same date. The difference between these numbers is 12,255, which ought to agree pretty nearly with the population of Hove parish in the middle of this year."

I afterwards forwarded the above extract to Dr. Kebbell, which he seems to have *quite forgotten*. So that I simply adopted the figures and mode of estimating of the Registrar-General.

In a footnote to my Annual Report for 1876 (of which I sent you a copy) I said:—"Mr. King's (the sanitary inspector of Hove) estimate of the population of Hove was over 17,000; 16,000 of this estimate has been adopted by Dr. Kebbell, the medical officer of health for that district, in his annual report for 1876, which much exceeds that of the Registrar-General, who estimates the parliamentary borough at 112,887, and the municipal at 100,632, making the population of Hove (by difference) 12,255." My report for 1876 also refers to a recommendation of the Registrar-General as to the taking a census oftener than once in ten years. I mentioned the instance of Barrow-in-Furness having done so, and suggested to the Brighton Sanitary Authority the desirability of imitating the example of Barrow. Dr. Kebbell has hitherto been in the habit of guessing at estimates of the population of Hove, while I hold that no estimate can be acknowledged which has not received the official sanction of the Registrar-General; and I am very glad to find that Dr. Kebbell has followed my example in recommending a census oftener than once in ten years, and that his recommendation has been adopted by his sanitary authority.—I am, Sir, yours, &c.,

A. P. B. TAAFFE, M.D. Lond.,
Medical Officer of Health for Brighton.

January 8th, 1878.

THE SOUNDS OF THE HEART.

To the Editor of THE LANCET.

SIR,—Mr. Illingworth, in his letter upon the Sounds of the Heart, which appeared in the last number of THE LANCET, seems to have forgotten one very important circumstance—the *rhythm* of the first sound.

The first sound, according to his hypothesis, should *follow* the jet of blood sent out during the systole, and never *precede* it. But with the stethoscope over the precordia, and the finger upon the carotid artery, we find that the first sound is appreciably *in advance of* the pulsation in that vessel; and, when the radial pulse is compared with the auscultatory phenomena, it is most distinctly *later* than the first sound. This is sufficient to negative the truth of Mr. Illingworth's view, and, from extended experience in the clinique of Dr. George W. Balfour, I have no hesitation in asserting its universality.

Further, his theory as to the absence of the first sound in certain cardiac lesions, and the origin of murmurs, seems to ignore the probability that, when the auriculo-ventricular orifice is permanently open, this would allow of an additional escape for the blood, and a consequent easier approach of the ventricular walls to one another.

I am, Sir, yours faithfully,
GEORGE A. GIBSON, M.B., D.Sc.

University of Edinburgh, Jan. 7th, 1878.

THE TREATMENT OF DELIRIUM TREMENS.

To the Editor of THE LANCET.

SIR,—Much has been said respecting the management and the various remedies used in cases of delirium tremens, each individual promulgating the advantageous results of his own experience, so much so that authors are at variance as to the best course to be adopted in such cases, some recommending (as the results of their own success) a certain regimen combined with ordinary attention to the secretions and excretions; others advocating, in addition to the aforesaid, narcotics and sedatives; while a third party resort to the heroic effects of the so-called specifics, such as capsicum, digitalis, &c. In commenting separately on the special advantages of each course, I would state in reference to the first mentioned, that where the case is of a mild form, and where due attention is paid to the management of the patient, he may go on well. In regard to the second, or the administration of narcotics, as opium, chloroform, &c., I cannot too forcibly deprecate the use of such remedies, even in the most diminutive doses, more especially in hot climates, as I have seen the most dire results follow their exhibition, the patient dying of convulsions and coma, the pupil exhibiting the well marked pinhole contraction, as observed in cases of narcotic poisoning.

Of the third, or specific form of treatment, there is no doubt a great deal to be said in favour of capsicum and digitalis. These, when properly administered, are most valuable remedies, the latter having a twofold effect in regulating and subduing the action of the heart, and thereby proving useful as a vascular sedative, in addition to its powerful diuretic properties; and as there is almost always well-marked congestion of the liver and spleen in such cases, which in hot climates has a very strong tendency to induce hæmatemesis, this remedy is most effective in averting the latter, and in combination with its diuretic action is, I think, most valuable in aiding the elimination of the morbid poison by the kidneys. However, as in the case of narcotics, the physician cannot be too cautious in the administration of this valuable medicine, always remembering its specific and cumulative action on the heart. After first effectually relieving the bowels, I am frequently in the habit of prescribing half-drachm doses of tincture of digitalis with fifteen or twenty minims of the acetum scillæ, with most excellent results, the dose being repeated every second, third, or fourth hour as the case requires, the action of the heart being my guide in every case as to the frequency of the dose, the attendant also being cautiously instructed to keep the patient quiet and in a recumbent posture. The above treatment was, I believe, originally introduced by Dr. Banks, of Dublin.

Capsicum has also had many eminent members of the pro-

fession to advocate its use, and recently its valuable effects have been more commented on, and I think it is becoming more generally used than formerly as a remedy in such cases. The more appreciable advantages of capsicum are, that it seems to allay that craving desire of the patient for alcoholic drink, and has a tendency to settle the stomach, which thereby tends to favour the assimilation of food into the system, which is so essential. It also acts as a powerful stimulant to the whole system. The powder is the most favourite form for administration, and is given in large and frequently repeated doses of from 20 grains to half a drachm in bolus with honey. The tincture is also frequently prescribed in mixture or draught. The advantages of this last remedy over the two former are very obvious, as it is not accompanied by any direct injurious action to the functions of the brain or heart, and its speedy effects are often developed in a most remarkable degree; so much so that frequently, after a few doses of the powder, the patient becomes quite coherent, and takes his nourishment with apparent relish, and continues to make a rapid and good recovery.

In summing up, therefore, the relative advantages of each course of treatment, I am of opinion that if success continues to attend the administration of capsicum, it is likely on substantial grounds to supersede any of the other remedies heretofore introduced.

Yours obediently,

S. H. HARRIS, L.K.Q.C.P., M.R.C.S., &c.,
Superintending Physician, Madras Railway Company, Madras.

Madras, Sept. 10th, 1877.

SAYRE'S APPARATUS.

To the Editor of THE LANCET.

SIR,—However much improvements in surgical instruments may be necessary, I think that the apparatus recently introduced by Dr. Sayre for the treatment of spinal caries needs little, if any, alteration.

I have seen it used by Dr. Thomson, of this town, several times, and in each case the patient bore suspension for over twenty minutes, one gentleman (of extremely delicate constitution) expressing himself as in no way inconvenienced though suspended half an hour.

Dr. Thomson uses the appliance made by Messrs. Mayer and Meltzer, and finds that *by suspending the patients from the extremity of the cross-bar, and not from a point midway between its centre and extremity* (as recommended), lateral pressure is *nil*, and antero-posterior so slight that the patients express themselves as being quite comfortable.

I am, Sir, yours truly,

J. MARTIN KENNEDY, M.D.

Peterborough, January 8th, 1878.

HOSPITAL STATISTICS OF THE NEWCASTLE-ON-TYNE INFIRMARY.

To the Editor of THE LANCET.

SIR,—You lately published some very interesting statistics of the results of major operations in the last six months in the Newcastle-on-Tyne Infirmary, amongst others, only one death after thirty-two major amputations. These results, according to Mr. Dixon's letter, were obtained under a strict adherence to "Mr. Lister's antiseptic treatment." May I ask Mr. Dixon, through your columns, if such results represent the general experience of the infirmary. He would add greatly to the value of a very valuable contribution to hospital statistics if he would give us the result of a similar set of amputations in, say, two similar periods, prior to the introduction of the antiseptic system. It is only by such comparisons that we can arrive at a satisfactory conclusion on this by far the most urgent question in surgery.

I am, Sir, your obedient servant,

Jan. 9th, 1878. RESULTS.

THE DENTAL LICENCE.

To the Editor of THE LANCET.

SIR,—I was glad to notice Mr. Napier's letter with respect to the dental diploma in your issue of the 5th inst., and I fully endorse all the views expressed therein. I can even go a little further than Mr. Napier in his remarks respecting mechanical assistants, for, should the report of the Committee on the Dental Diploma be adopted, I, as a surgeon, would be debarred the power of signing certificates, whereas my late butler, who has recently become the possessor of the L.D.S. degree, would be permitted to do so. This, I think, speaks volumes. It seems, as you very pertinently remarked in your leader of Nov. 17th, 1877, on this question, that the Council of the Royal College of Surgeons have taken up a position which is "neither logical nor expedient." It is, moreover, "an irregular procedure," and one which cannot but tend to do serious injury to this branch of surgery. It is to be hoped that the whole matter will be entirely reconsidered before so great an act of injustice as that contemplated is perpetrated against both its Fellows and Members.

I am, Sir, faithfully yours,

J. HAMILTON CRAIGIE.

Portland-place, W., Jan. 8th, 1878.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at a meeting of the Board of Examiners on the 9th inst.:—

M. H. Bulteel, St. George's Hospital; G. T. M'Keough, Toronto and London Hospital; E. Roper, Guy's Hospital; C. Plant, Manchester; R. E. Roth, J. E. Square, and W. E. Barton, University College; W. T. Williams; London Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Jan. 3rd:—

Clarke, Thomas Furse, Richmond, Surrey.
Dingley, Allen, Argyle-square, King's-cross.
Ellison, Frederick William, Leytonstone.
Richardson, Richard Tippetts, Kingston-on-Thames.
Thomas, Richard Weddell, York.

The following gentlemen also passed the Primary Professional Examination:—

Henry Aitkens Baker, Guy's Hospital; George Duppa Collins, King's College Hospital.

[In the list published on the 22nd of December last, the address of Lewis Wm. Reynolds should have been given as Polsloe-road, Exeter.]

DURING December there were twenty-three patients suffering from small-pox admitted into one hospital in Dublin.

IT is proposed to raise a fund to be called "The Charles Trotter Fund," in memory of that gentleman, and for the benefit of the Stockton Hospital.

DR. ALEXANDER H. BARTLET, has obtained a superannuation allowance of £66 13s. 4d. per annum, on resigning as medical officer to the county gaol, Ipswich.

MEDICAL OFFICERS in charge of brigades at Aldershot have been ordered to send to the general officers commanding, every Saturday, a brief statement of the sanitary state of the brigade.

ON the 5th instant, Dr. Lang, of Southport, was attempting to discover the source of an escape of gas at his private house with the aid of a light, when the gas exploded. Dr. Lang was killed, and the house was considerably damaged.

THE members of the Council of the Metropolitan Hospital Sunday Fund have been summoned to a meeting on the 15th instant, to elect the General Purposes Committee and the Committee of Distribution for the current year; also to consider a resolution to be proposed by Sir Rutherford Alcock, relative to allowing "Truss" and kindred societies to participate in the awards from this fund.

SCIENTIFIC LECTURES AT THE COLLEGE OF PHYSICIANS IN IRELAND.—During the months of February and March six lectures on scientific subjects will be delivered at the Irish College of Physicians. The lecturers will be three in number—Drs. Smith, Purser, and Grimshaw, who will each give two lectures. Dr. Walter G. Smith has chosen for his subject, "The Principles of Electro-Therapeutics," Dr. Purser "On some of the Physiological Bases for Diagnosis in Spinal Disease," and Dr. Grimshaw, "The present state of our knowledge of the intimate pathology of Contagion, and its relation to the prevention and treatment of Zymotic Diseases."

PROFESSOR GORDON, BELFAST.—It has been resolved, at a large meeting of students, to present a testimonial to Dr. Alexander Gordon, Professor of Surgery in Queen's College, Belfast, and that the testimonial should take the form of an oil painting of the Professor, to be placed in the examination hall of Queen's College. Professor Gordon has made several valuable contributions to surgery, and we can well understand the feelings which prompt his pupils to offer this tribute.

ABERDEEN ROYAL INFIRMARY.—On Thursday the annual social treat to the patients in the hospital was given, under the superintendence of Dr. O. Will. The meeting was held in the operating theatre, which was tastefully decorated for the occasion, and in the centre of which was a large Christmas-tree, laden with suitable gifts. All the patients who were in a condition to leave their wards were present, along with the officials of the institution, and a number of the students and visitors. The gifts were distributed to the patients, those who were unable to leave their beds having theirs sent to them. The whole passed off very satisfactorily. Great credit is due to Dr. Will, who for some years has taken the chief charge of getting up what, to the patients, is a most satisfactory substitute for the Christmas festivities out of doors, which their condition prevents their sharing.

Medical Appointments.

BARKER, E., M.R.C.S.E., L.S.A.L., has been appointed Surgeon to the Brightside District of the Sheffield Police, at £10 for one year.

BECK, R. C., M.R.C.S.E., has been appointed Medical Officer for the Leavening District of the Malton Union, Yorkshire, at £40 per annum for three years.

BELL, Mr. C. E., has been appointed Surgeon to the Exeter Police Force, vice Phelps, resigned.

DAVIES, H. W., M.R.C.S.E., has been appointed Resident Medical Officer to the Memorial Hospital, Jarrow-on-Tyne.

EDWARDS, E. P., L.R.C.P.Ed., L.F.P.S.G., L.S.A.L., has been re-appointed Medical Officer of Health for the Anglesea and Holyhead Rural, and Beaumaris and Holyhead Urban, Sanitary Districts, at £200 for one year.

HALLAM, A., M.R.C.S.E., L.S.A.L., has been appointed Surgeon to the Central Division of the Sheffield Police, at £60 for one year.

HEBB, R. G., B.A., M.B., M.R.C.S.E., has been reappointed Medical Registrar to King's College Hospital.

HICK, H., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Wortley District of the Bramley Union, Yorkshire, vice Evans, resigned.

HORNER, A. C., L.R.C.P.L., M.R.C.S.E., has been appointed Resident Obstetric Assistant to the Westminster Hospital, vice Quicke, whose appointment has expired.

JAMES, W. D., M.R.C.S.E., L.S.A.L., has been appointed Surgeon to the Highfield Division of the Sheffield Police, at £15 for one year.

KENYON, G. A., M.B., L.R.C.P.L., M.R.C.S.E., has been reappointed Medical Officer of Health for the combined Chester, Tarvin, and Wirrall Rural, and Chester, Neston-cum-Parkgate, and Tarporley Urban, Sanitary Districts, at £600 per annum for three years.

LINDSAY, A., M.B., L.R.C.S.Ed., has been reappointed Medical Officer and Public Vaccinator for the Morland District of the West Ward Union, Westmoreland, at £25 for one year, and Medical Officer to the Workhouse, at £12 per annum.

LLOYD, E. J., M.D., C.M., M.R.C.S.E., has been appointed Medical Officer to the Normal College, Bangor, vice Jones, deceased.

MACNAMARA, J., L.K.Q.C.P.I. & L.M., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Urlingford Dispensary District of the Urlingford Union, in the Counties of Kilkenny and Tipperary, at £100 per annum and fees, and £20 per annum as Medical Officer of Health; also Medical Attendant to the Royal Irish Constabulary, Urlingford; all vice Greene, deceased.

MEADOWS, H., M.B., C.M., has been reappointed Public Analyst for Leicester, at £80 for one year, and fees for analyses of water.

O'KEEFE, D. J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Surgeon to the Broomhill Division of the Sheffield Police, at £10 for one year.

O'KELLY, R. A., L.R.C.P.Ed., L.R.C.S.Ed., L.A.H.D., has been appointed Medical Officer, Public Vaccinator, &c., for the Clonbrock Dispensary District of the Mountbellew Union, at £120 per annum and fees; and for the Ahascragh Dispensary District of the Ballinasloe Union, at £50 per annum and fees; both vice Spencer, resigned.

PATCHETT, R. A., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Chipping District of the Clitheroe Union, vice H. Patchett, L.R.C.P.Ed., L.R.C.S.Ed., resigned.

ROBERTSON, J. D., M.D., L.R.C.S.Ed., has been reappointed Medical Officer and Public Vaccinator for the Eamont-bridge District of the West Ward Union, at £10 for one year.

ROBINSON, H. S., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the County Gaol, Norwich, vice Master, resigned.

SHAPLAND, J. D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the No. 2 or Upper Norwood District of the Croydon Union, vice Dean, deceased, at £50 per annum and fees.

SPOWART, T., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Surgeon to the Walkley Division of the Sheffield Police, at £10 for one year.

STOCKER, C. J., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed Surgeon to the Pawnbrokers' Almshouses, Forest-gate, Essex, vice Sweeting, resigned.

SWAYNE, A. E., L.R.C.P.Ed., L.R.C.S.Ed., L.A.H.D., has been appointed Medical Officer and Public Vaccinator for the Hoo Union, Kent, and Medical Officer of Health for the Hoo Rural Sanitary District, vice Edwards, resigned.

TIRARD, N. I. C., M.B., M.R.C.S.E., has been appointed Surgical Registrar to King's College Hospital.

WILLIAMS, J., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer to the County Gaol, Carnarvon, vice Jones, resigned.

YOUNG, J. De Courcy, L.R.C.P.Ed., L.F.P.S.G., has been appointed a Medical Officer to the Western Branch of the Metropolitan Self-supporting Dispensary, Notting-hill.

Births, Marriages, and Deaths.

BIRTHS.

BRISBANE.—On the 3rd inst., at Park-road, Regent's-park, the wife of James Brisbane, M.D., of a daughter.

COOPER.—On the 2nd inst., at Leytonstone, the wife of Frank W. Cooper, L.R.C.S.Ed., of a daughter.

COTTON.—On the 3rd inst., at Anglesey, the wife of John Cotton, M.D., Fleet Surgeon H.M.S. *Sultan*, of a daughter.

FLEETWOOD.—On the 8th inst., at Aintree, Liverpool, the wife of W. J. Fleetwood, L.K.Q.C.P.I., F.R.C.S., of a daughter.

MAUNSELL.—On the 6th inst., at the Royal Arsenal, Woolwich, the wife of Surgeon-Major T. Maunsell, Army Medical Department, of a son.

RAWSON.—On the 1st inst., at Otter-Holt, Carlow, the wife of Dr. Edward A. Rawson, of a daughter.

REAN.—On the 2nd inst., at Gunnislake, Cornwall, the wife of W. H. Rean, M.R.C.S.E. & L.S.A., of a son.

SWAINE.—On the 26th October, at Ranchee, Chota Nagpore, Bengal, the wife of Surgeon F. R. Swaine, M.B., of a daughter.

MARRIAGES.

HARRIS—MORGAN.—On the 2nd inst., at Emmanuel Church, Clifton, by the Rev. J. P. Norris, B.D., Canon of Bristol and Vicar of St. Mary Redcliffe, assisted by the Rev. T. G. Luckock, M.A., Vicar, Vincent Dormer Harris, M.D. Lond., M.R.C.P., youngest son of William Harris, Esq., of Pembroke-road, Clifton, to Agatha, eldest daughter of George King Morgan, Esq., of Cherith Lodge, Clifton.

YARROW—GALLATLY.—On the 9th inst., at the Hôtel de Ville, and afterwards at the Lutheran Church, Neuchâtel, George Eugene Yarrow, M.D. &c., to Mary Maud Gallatly, both of London.

DEATHS.

BARNES.—On the 28th ult., at Mill-street, Toxteth-park, Liverpool, Archibald Ferguson Barnes, L.R.C.P.Ed., aged 41.

DICKSON.—On the 31st ult., at Baillieston, Lanarkshire, James Dickson, L.F.P.S.G., aged 68.

GODFREY.—On the 3rd inst., at Herne Bay, Thomas Godfrey, F.R.C.S.E., aged 58.

GUNN.—On the 5th inst., at Forres, Robert Gunn, M.D., aged 35.

HAWKER.—On the 1st inst., at White Horse-lane, Stepney, Charles Hawker, L.R.C.P.Ed., aged 59.

HOOPER.—On the 3rd inst., Alfred Hooper, F.R.C.S.Ed., of Clapham-common, aged 44.

KERR.—On the 3rd inst., at Northumberland-street, Edinburgh, David Kerr, M.D., aged 73.

LANG.—On the 5th inst., John Lang, M.D., of Southport, in his 50th year.

LIPSETT.—On the 6th inst., at Raglan-road, Dublin, Lewis Edward Lipsett, F.R.C.S.I.

MATURIN.—On the 8th ult., accidentally drowned while crossing the Allagalla River, Ceylon, Charles Gabriel Maturin, L.K.Q.C.P.I.

MORLEY.—On the 29th ult., at Midhurst, Sussex, Henry Morley, M.R.C.S.E., aged 84.

REYNETT.—On the 18th ult., at Williton, Somersetshire, James Henry Reynett, M.R.C.S.E., aged 57.

THOMPSON.—On the 29th ult., at Donhead-St.-Andrew, Salisbury, William Ballin Thompson, L.R.C.P.Ed.

TOWNSEND.—On the 6th inst., at The Cottage, Queenstown, Edward Richard Townsend, M.D., aged 77.

WILDE.—On the 29th ult., at Lockwood, Yorkshire, Abishai Wilde, M.R.C.S.E., aged 79.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. J. J. L. Ratton: A Handbook of Common Salt.
The Birmingham Medical Review. January.
Silverlock's Visiting List. 1878.
J. W. Colenso: The Student's Algebra.
Rev. W. Linwood: The Theban Trilogy of Sophocles.
Christmas Number of the Masonic Magazine.
The Popular Science Review. January.
Dr. Williamson: The Climate of The Undercliffe in Chronic Pulmonary Diseases.
The Dublin Journal of Medical Science. January.
O. W. Tancock: England during the American and European Wars.
H. Lloyd: Physical Science.
R. A. Proctor: Other Worlds than Ours.
The American Practitioner.

Notes, Short Comments, and Answers to Correspondents.

LIST OF CONTRIBUTORS FOR 1878.

THE following names should be added to the list of contributors for 1878, which appeared in THE LANCET of the 5th inst. :—Mr. Alexander, Bradford; Mr. Darke, Salisbury; Dr. Hugh Miller, Glasgow; Dr. Paget, Cambridge; Mr. O. Pemberton, Birmingham; Mr. Jabez Thomas, Swansea; Dr. Tylecote, Stafford; Dr. Waters, Liverpool; Dr. J. Wilson, Worcester.

"MEDICAL CHARGES."

"THIS subject was, we remember" (says the *Graphic*), "very fully discussed in the papers some years ago; and, curiously enough, on the same day as the 'Overwrought Patient' indited his grievances we ourselves received a dentist's account, at the foot of which was written, 'N.B.—Particulars if required.' This seems to us a sensible innovation—if it be an innovation,—and it is worth the attention of the other branches of the medical profession. At the same time it is but fair to remember—especially nowadays, when doctors have ceased to indulge in that profuse exhibition of draughts and boluses which prevailed in our boyhood—that the skill and attention of a medical man can scarcely be divided into separate items as accurately as tea and sugar and spices from the grocer's shop. The 'Overwrought Patient' would probably sneer at such an item as this, 'To lying awake a couple of hours worrying over your case,' yet it might represent an absolute fact. On the whole, his grievance appears to us of a somewhat microscopic character, and, if he thinks that his doctor is overcharging him—which is really the plain English of his complaint—he ought to throw 'social position' to the winds, and tell him so boldly. It seems to us that doctors have far more substantial grievances to allege against their patients. They are eagerly summoned when sickness comes, but too often their bill is paid grudgingly, and after long delay. Sometimes it is not paid at all; and it is notorious that no professional men make such a heavy percentage of bad debts as doctors."

Mr. R. Purves.—We cannot agree with our correspondent's suggestion.

ERGOT IN MIDWIFERY PRACTICE.

To the Editor of THE LANCET.

SIR,—In your previous numbers I have read with much interest various letters respecting the use of ergot in midwifery practice, and I cannot help expressing my surprise with that of Dr. Newham at the various opinions held respecting the value of it.

In looking over my notes of nearly 1000 cases, I find that in no one instance where ergot has been employed has it failed to produce the usual uterine contractions. I usually give it in the following form, and find it answer admirably:—I put one drachm of the bruised or powdered ergot into a teacupful of cold water, and let it gently boil for two or three minutes; when it has somewhat cooled, I generally add a small quantity of brandy (two or three tablespoonfuls). This I find produces the characteristic pains in from ten to fifteen minutes. Although I have employed ergot very generally, especially in those cases where the os is dilated, the membranes ruptured, and passages favourable, I have never known any ill-consequences follow its exhibition. I do not find what some of your correspondents experience—viz., that by rupturing the membranes in the early stage, when the os is dilated to the size of a half-crown, labour is retarded. On the contrary, I think it is expedited, especially if a dose of ergot be given ten minutes before doing so.

I intend shortly, with your permission, to give a *résumé* of 1000 cases, when I will particularise those in which ergot has been administered.

Your obedient servant,
Cheltenham, December, 1877. CHAS. J. BENNETT.

To the Editor of THE LANCET.

SIR,—Whilst the discussion on ergot is going on in your columns, I would be glad to get information as to a reliable preparation which will have the merit of stability. The freshly-powdered ergot is, I am sure, excellent; but it is not easy always to have it at hand, particularly if one does not use it often. I have tried the liquid extract (B.P.), and found it thoroughly unreliable. Of course that I got may have been an unfortunate sample. Latterly I have used the liquid extract of the United States Pharmocopœia. I seem to have had very good results with it. Has it proved efficacious in the hands of others? A fluid preparation has such manifest advantages in convenience of exhibition, accuracy of dosage, &c., that to find one even equal in action to powdered ergot would be a gain. I hope we may have some further testimony on this important point. Yours obediently,
Huddersfield, December, 1877. DECCAN.

TREES IN TOWNS.

IT would appear that in some of the large English towns persistent efforts are being made to plant trees in the streets wherever practicable. The movement is highly sound and commendable, and should be encouraged in every possible manner. The hygienic value of trees in towns must, without doubt, be great. Considerable care should be exercised in the process of planting; the old soil should be removed, and fresh soil brought from the country for the reception of the young trees.

Polonius.—We think such a gift is to be regarded as a personal matter, outside of business or partnership receipts.

An Anxious Parent should know that respectable practitioners never *advertise*. The fact that a medical man resorts to that expedient to obtain, or maintain, a connexion, more particularly in regard to a class of affections such as that named, is enough to warn a patient or his friends to avoid the bait. Consult a respectable general physician.

Tyro should apply to the Secretary of the Society of Apothecaries.

HYDROPHOBIA AND MADNESS IN DOGS.

To the Editor of THE LANCET.

SIR,—I begin these remarks on the two cases of supposed deaths from hydrophobia recorded in THE LANCET of October 20th, 1877. I use the word "supposed" advisedly, because both cases are founded on mere supposition, not much more, and in no way on facts that have anything to do with hydrophobia. In short, the facts that are offered to our notice are in direct variance with the established meaning of the ever fatal disease when decided infection has taken place; for in neither case had the patient a "hatred of water," and in one instance, that narrated by Dr. James Adams, "intense thirst" was one of the characteristics attendant on the fatal termination; therefore the disease of which the young mason died could *not* have been hydrophobia. Of course it is almost needless to repeat that the term established by the Greeks means a "hatred of water." To this fact I have continuously endeavoured to draw the attention of the medical profession as well as the public generally. If there is no such thing as hydrophobia, then drop the term. If, then, the never-failing symptom of real hydrophobia was absent in this case, as Dr. Adams assures us that it was, that there was "no fear of water or any liquids *quo* liquids," it must be very evident that to quote this as a death from assumed hydrophobia was out of the question, and such a statement then has no foundation whatever.

While dealing with this case, let me state that in the excess of assertions made on madness in dogs, madness is, by a strange complication of ideas, invariably made to bear the horrible, but in this case falsely applied, term of hydrophobia. Whereas there are every succeeding year thousands of mad dogs, essentially mad for the time being, until death or recovery terminates the patient's sufferings, whose insanity bears no poison in its jaws other than a rusty nail or a thorn would carry with it, enabling the slightest wound on an unhealthy frame to produce an unsound and a morbid state of mind, and the supervention of lock-jaw, eventually causing death.

While dealing with erroneous nomenclature, let me, in passing, ask the numerous veterinary surgeons and other unthinking people what meaning they attach to the term "rabies" other than is awarded to it by Johnson's and other dictionaries?—that is, if by "rabies" they mean rabid. The dictionaries give it quite sufficient wit for our day, when they say that it means "madness, insanity," &c.; but no dictionary that I can find ever has assigned "hydrophobia" to its category of horrors; that term seems to have been left to the veterinary school. Why, then, let me ask, are we to be cumbered and confused by an expression coined for the occasion when we have two words quite expressive enough to delineate the two insanities, the source of which we are in search of—viz., "madness" in dogs, very frequent and very common, the teeth of these dogs being imbued with no assuredly deadly virus; and the very rare and ever deadly insanity, when it does occur, called "hydrophobia"?

Casting from us, then, the useless term "rabies," let us as closely as possible review my constant attention and practice of considerably over sixty years, which I have dedicated to packs of hounds, kennels of greyhounds, and all other sporting dogs, my own extensively used and closely attended to private property; nothing trusted exclusively to servants,—in all that time every hound, every dog, being bred by me or by others of my family, and each succeeding spring hundreds of puppies coming in from the tenants' farms, where they were "walked" from infancy, as it may be called, till they were nearly or quite full-grown, sufficiently so to bear the confinement of their spacious kennels. In all that time I never knew but one case of hydrophobia, and that was in a foxhound bred at Berkeley Castle, as previously described by me in my published "Reminiscences of a Huntsman," and that young foxhound, sent from Berkeley Castle to my residence in Bedfordshire, Harrold Hall, when I was hunting the Oakley country, in succession to the late Lord Tavistock, afterwards Duke of Bedford, was taken by my own hand from the spring entry of the best of our young hounds, because I saw he looked dull and refused to play with his companions. I took him from the kennel, and confined him in an otherwise empty stable, and in a few days confirmed hydrophobia became manifest. The most violent horror of water was evinced; instead of a "thirst for water," after once looking at the dish by him, he shrank from its sight, and when I removed it from his sight to the other side of the stall, if I splashed it with my hand, audibly to him, the noise of the water made him furious with dread of it. He never howled; he was never violent, save on the presentation of water. He never foamed at the lips; on the contrary, nose and lips were dry and sear. He was sullen, and had he been at large, and pursued by people, I think he would have become violent; but this was prevented by confinement. I forget at this moment the precise duration of the attack; but it lasted either three or four days, and then on going to him one morning I found him curled up in his straw bed, dead, and no symptom whatever of a violent struggle for life.

Let me now take in brief review the thousands of cases I have seen of insanity in hounds and dogs, arising from the periodical recurrence of the common distemper, a curse and an expensive loss every year occurring in all kennels when young hounds and dogs come together. The common distemper is an epidemic occurring every year; all young dogs are liable to it, and all, sooner or later, must have it. The epidemic varies in its character, more or less severe as the case may be. In its severest phases it is very frequently attended with complete madness, hounds and dogs mad as mad can be. The poor insane creatures have no violent wish to bite anything; but if they run up against their master's legs, or against the corners of their bedstead or against the wall, they give a violent snap at whatever comes in contact with them, not by way

of a meditated assault, but to repel aggression. Their eyes in this state are glazed, greenish in the shine of the pupil, and purblind; their mouths full of saliva, the latter running from the corners of the mouth; the nose in itself outwardly dry, but discharging from within a thick and unhealthy-looking mucus. A pitiable and violent thirst is on them; they are greedy for water, and will lap at it for hours. Sometimes they have a difficulty in swallowing, but not always, and I have thought that this arises from spasm occasioned by the immense inflammatory heat in the glands, and the sudden contact of the cold fluid. They have a husky cough on them, and have invariably a half-sensible inclination to give themselves a vomit; for they will eat, if they can get it, quantities of spear or coarse grass; if they cannot get grass, they will eat the straw from their beds; and, failing that, they will pick up and eat bits of the kennel-broom, bits of stick, or gnaw chips from their bedsteads. They (the young hounds or dogs) in this state bite each other in snaps, but no set fighting; and I have seen hundreds of cases where they have bitten the farmers' labourers and my own servants, but in no one instance, in over sixty years, did I ever know a serious result to any human being. On observing their half-sane or natural desire to obtain a vomit, I have always tried to meet such cases as I deemed on nature's hint, and it produced the effect the patient seemed to desire. Many of these "mad dogs" died, many regained their senses and recovered; but as soon as fits supervened I always deemed these cases hopeless. They (the fits), either at once or in a short time, produced death; or if the poor sufferer survived at all, paralysis of the limbs ensued, and the hound or dog was useless for any sporting purposes, though in some degree reinstated in general health.

Madness in dogs is capable of prevention, certain as tried by me, and as recounted to me by our great Dr. Jenner, who experimented on his own dogs, and wrote to the late Sir Mathew Tierney of his success. Vaccination, then, is a preventive, not a cure, if the seeds of distemper get the firm hold. Of late years my local physician, Dr. Philpots, of Poole, has most kindly vaccinated all my dogs for me, and no case under his hand has ever failed.

Now let us turn to the second case of presumed hydrophobia, as mentioned in THE LANCET, which case occurred in Bedfordshire ("Note on a Case of Hydrophobia," by Dr. Rowland H. Coombs). To make it as short as I can: A child, aged two years and nine months, the son of a farm labourer at Ravensden, in Bedfordshire, was bitten on the roadside by a "rabid dog." Dr. Coombs says "there can be no doubt the dog was mad; it was a stray animal without an owner." If Dr. Coombs thinks that every poor neglected dog who has no evident owner is for that reason a mad dog, capable of spreading death and destruction, I must say his conclusions are rather too hastily formed. Well, this poor, neglected, forlorn creature, reviled, stoned, and driven from place to place, gets among dogs in better condition than himself, who insult his poverty, and he in return bites them, and then on the point of death is destroyed by a valiant constable—the worst thing the constable could do. The child who had been bitten had gone through cauterisation, was frequently heard to call his assailant a "nasty dog," and "hoped his father would shoot it." This, according to Dr. Coombs, showed that the recollection of the bite was exerting an influence over the child's nervous system. For myself I have not the least doubt of that; but at the same time there is in this case, as narrated by Dr. Coombs, one remarkable fact, and that is the "hatred of water." How Dr. Coombs knows that there was a "thirst for water," when the child evinced a horror of it, he does not explain. A notice of such a point should never be omitted. Dr. Coombs admits that in this case the true "hydrophobic stage set in." By that I deem him to mean "the hatred of water"; and if this is distinctly proved, in my own mind this looks like an established fact in regard to the progress of the disease we are in search of.

To the foregoing cases there follows the "Etiology of Hydrophobia," by Dr. A. Ginders. He speaks of the evidence of the veterinary surgeon who so needlessly caused the murder of the whole kennel, I believe, of the Durham foxhounds, under the mistaken plea of hydrophobia,—the distemper madness of these "faithful friends of man" being saddled by our Veterinary Colleges with the senseless term of "rabies," rabies being intended as a hereafter fashionable term for hydrophobia. I fought the battle of the Durham foxhounds through the aid of the press at the time of this miserable occurrence, and since then much the same thing as to the Essex hounds. It is, however, useless for us to follow up any distinct discussion while meaningless terms or "flash language" is permitted to cumber the object we have in view. What new diseases may crop up, that we none of us can tell; but it will be found that at present the only test between the more common aberration of intellect, the distemper in the dog, and the very rare fact of hydrophobia, is the "test of water." On these truths I give the word of a soldier and a gentleman, and perhaps, to say the least of it, it is the result of the practice of the oldest and most painstaking sportsman that is in existence.

I have much more to say on this very important subject, concerning as it does in a very great measure the safety and the happiness of the human race; and instances are within my knowledge where people, instead of rashly destroying a "mad dog," have safely secured and kept it confined, when the mad dog has completely recovered his senses and his health, and thus at once ended any morbid fears as to the result of a bite.

There are also many vulgar errors among certain classes of the people, such as a belief that if a sane and at the same time healthful dog bites a man, if ever in subsequent years that dog should go mad, the man whom it has bitten in former years is bound to go mad too.

Also, my table is covered with the most ridiculous letters from clergymen and other parochial pundits, giving me the sworn-to narrations of blacksmiths and labourers of all sorts of the deaths from hydrophobia arising from the bites of dogs, of cows, horses, and donkeys, these last-named animals "barking like a dog," and in one case "roaring like a lion," in proof of their death by the tooth of a mad dog,—these benighted individuals, as usual, making the term "mad" cover every and more terrible disease that may follow any sort of aberration of intellect whatever.

If Heaven grants me better health than I at this moment enjoy, I should be perfectly ready to meet those who differ with me in opinion, as I even am to meet those who do me the honour to agree with me, in public consultation or in lecture, when questions could be raised and answered. It would tend to a better result than the more tedious process of the pen. I am, Sir, your obedient servant,

GRANTLEY F. BERKELEY.

Alderney Manor, Poole, Dorset, Jan. 3rd, 1878.

CUTTING OFF THE WATER.

THE medical officer of health for Glasgow, Dr. Russell, has called attention to an evil which has before now been commented on by some of the metropolitan medical officers of health. An avaricious or obstinate landlord, by refusing to comply with stated requirements touching the condition of one or other of his houses, is punished by the process known as "cutting off" the water of the said house—a procedure of no consequence to the landlord himself, but of serious import to the poor occupiers of the tenement. Such a temporary deprivation of the water-supply is not only highly inconvenient, but dangerous to health. "There are," writes Dr. Russell, "landlords and factors in Glasgow who will expose their tenants, especially of the poorer sort, to any amount of discomfort and risk without hesitation if a few shillings can be saved or even delayed in expenditure for a week or two." The remedy which Dr. Russell suggests is that the Water Commissioners, when about to cut off the water of a house, should immediately notify the same to the sanitary authorities, who would without delay proceed to apply what Dr. Russell calls "stimulus" to the landlord.

Apple.—The guardians are required to appoint the gentleman with the double qualification in medicine and surgery, unless the Local Government Board see fit, for some particular cause shown, to authorise them to accept a single qualification in medicine or surgery only.

Mr. F. Stokes must consult his medical attendant. We cannot advise in the case.

CERTIFICATES OF DEATH.

To the Editor of THE LANCET.

SIR,—I was appointed by the Skipton Rural Sanitary Authority their temporary medical officer of health about twelve months ago, and since that time the returns of deaths from the several districts have been sent in monthly. I am surprised to find that in the Addingham district, out of thirty-nine deaths that have taken place since May last, not one has been certified by a qualified medical man. I think the attention of the Registrar-General should be called to it, because if unqualified men can practise for years with impunity, what is the use of being at the expense and labour to qualify? I understand they have a form, which they fill up in case of the death of any person they have attended, and this is sent to the registrar of the district with the cause of death inserted, but not certified in their name. One of the parties has been practising for more than ten years to my knowledge, and is possessed of a very good practice, which extends for miles around Addingham. I have asked the registrar of a neighbouring district how it is they accept the uncertified certificates of deaths, and he tells me the Registrar-General's attention has been called to it by him, and, in reply, he was told to accept them. Dr. Beard, I understand, told this registrar he was not to accept the certificates of successful vaccination signed by an unqualified man. If the certificate of vaccination is not accepted, how much more important is it that the certificate of the cause of death should not be accepted. Would you kindly give me the information necessary in such cases? Yours respectfully,

Skipton, December, 1877. W. JACKSON, L.R.C.P. Ed., &c.

*** The following regulation of the Registrar-General as to registration of deaths where the deceased has been attended by an unregistered practitioner is in force. "On learning from an informant who produces no certificate (legal or otherwise) of the cause of death that the deceased has been attended by an unregistered practitioner, the registrar should represent the importance of written testimony as to the cause of death, and should encourage its production." Written information of this sort from unregistered assistants and general practitioners, from qualified but unregistered practitioners, or from irregular practitioners (e. g., "bone-setters," "herbalists," &c.) is simply to be regarded as part of the information tendered by the informant.—ED. L.

L.R.C.P., (Plymouth.)—The only town in the island (Funchal) contains several Portuguese physicians, and, we believe, one English practitioner. Our correspondent would have a better chance of making a "light practice" at the Cape. The Colonial Office has nothing to do with medical appointments in the latter colony. Application should be made to the Agent-General in this country. The cost of living would be less than in Madeira.

One who likes Justice.—It is necessary in any well-ordered establishment to have some scale of allowances, even for the tables of "officers." We cannot think *one pound* per head of uncooked meat is a niggardly amount to apportion; on the contrary, assuming the quality to be thoroughly good, the quantity is sufficient. It is only fair to look at these matters from the managers' point of view. No offence can be given, or is likely to be intended, by the arrangement.

S. C. K.—We cannot prescribe or recommend practitioners.

DRESSERSHIPS AND HOSPITAL PRACTICE.

To the Editor of THE LANCET.

SIR,—Permit me to express a hope that provincial practitioners everywhere will watch with critical eyes the attempts that are being made to render nugatory the recent recommendations of the Medical Council, which would oblige every student either to serve as a metropolitan hospital dresser or to attend a provincial hospital before going in for his diploma. In most of the metropolitan hospitals the regulation is sought to be evaded by the establishment of a number of dresserships out of all proportion to the resources of those institutions. I will say no more at present, but recur to the subject more largely hereafter.

Yours truly,

Cashel, Dec. 19th, 1877. THOMAS LAFFAN.

THE DEAN OF CARLISLE ON THE VIVISECTION ACT.

DEAN CLOSE, in a very virulent letter, condemns the present Act of Parliament as worse than useless, and denounces the guilt of the misguided operators in the sight of that God "who careth for the sparrows." It is very easy for deans and other illustrious persons to quote scripture. The venerable dean might do well to direct his attention to another passage, which declares the respective value of men and sparrows, and which is strangely overlooked by the opponents of a regulated vivisection. When they have explained away the statement "that men are of more value than many sparrows," and the fact that they sanction vivisection every day by eating beef and mutton for the support of their own healthy bodies, we shall think of reasoning with them about the martyrdom of a few frogs in the interest of those in sickness or in pain.

A Subscriber.—The answer to our correspondent's letter has been unintentionally delayed.—1. In addition to the ordinary set of wooden splints, padded and ready for use, a stock of gutta-percha, of a thickness varying from an eighth to a quarter of an inch, should be kept on hand. After immersion in hot water, it admits of accurate adaptation to the limb.—2. The vaccination fee for a servant should be about a third of that for the principal.—3. We are not aware of any scale of medical charges specially applicable to country districts. We would refer our correspondent for information on this subject to a pamphlet by Mr. Jukes de Styrap, of Shrewsbury, on Medico-Chirurgical Tariffs.

"MIXED NARCOSIS."

To the Editor of THE LANCET.

SIR,—I have read with much interest your annotation and article on the subject of "Mixed Narcosis," which appeared in recent numbers of THE LANCET, and I beg to send you the following report of a case in which I had employed the same method of producing anæsthesia, although unconscious of its great value or originality, a fortnight before its employment by Thiersch, and a month before I read of it in THE LANCET.

On the 3rd of November I was called to see a case in consultation with Dr. MacDowel and Dr. Palmer. The patient, a man about thirty-two years of age, was suffering intensely from urinary extravasation and infiltration, due to an impassable and all but impermeable stricture. The mischief was of long standing, as ten years ago a catheter was passed with the utmost difficulty. Several fistulæ had meanwhile formed in the perineum, and at the time of our consultation abscesses were forming in the scrotum, and the penis was threatened with sloughing. To save the parts we determined on making free incisions. The patient was in great pain, and was exquisitely sensitive, so that it became necessary to obtain anæsthesia before attempting any interference. But as he was greatly enfeebled by a long illness, and the heart-sounds were weak, it was not deemed safe to push chloroform, especially as we anticipated from his previous habits that a large quantity would be necessary. Accordingly, to relieve the pain and minimise the amount of chloroform, I administered hypodermically between the one-sixth and one-fourth of a grain of the acetate of morphia. It gave almost immediate relief, and quickly produced drowsiness, and in a quarter of an hour after its administration we proceeded to give the chloroform. The patient was speedily and thoroughly narcotised, with less excitement and jactitation than I have usually seen from chloroform, and without stertorous breathing; nor was there vomiting afterwards. Subsequently, on another occasion, chloroform by itself produced vomiting, and, the respiration becoming much embarrassed, we had to lay it aside.

Such is, in brief, my experience of the new method of "mixed narcosis," employed before I became aware of its great utility, and suggested to me by the nature of the case as I have narrated it.

Your obedient servant,
Sligo, Dec. 12th, 1877. M. F. COX, L.R.C.S.I., &c.

To the Editor of THE LANCET.

SIR,—Mixed narcosis was adopted at the Louth County Infirmary on the 31st ult. The case was one of large abscess in the thigh and suspected abscess in the femur, consecutive on excision of the knee-joint. One-third of a grain of morphia was subcutaneously injected into the arm; fourteen minutes afterwards chloroform on a Skinner's inhaler was exhibited. In three minutes the patient was unconscious of pain, when Esmarch's bandage was applied. The operation lasted about fifteen minutes, during which time he was conscious, and answered the questions which were freely put to him, at the same time feeling no pain. On one occasion only did he complain; but the inhalation of chloroform had been for some time discontinued. The case was instructive, as on the occasion of his knee being excised it was found extremely difficult to get him under the influence of chloroform, which was accomplished only after a very large quantity had been taken, and he was most violent. On this occasion a very small quantity was exhibited; it was followed by a dry retching, which lasted only two or three minutes, and which was at once stopped by an ounce of whisky with water. On the former occasion vomiting persisted for several hours; but this was due, no doubt, to the very large quantity of chloroform used. As in the case reported on page 802 of THE LANCET, the patient said the worst part of the operation was the prick of the syringe. No myosis was noticed.

Yours truly,
HERCULES H. MACDONNELL, M.D., &c.,
Surgeon to the County Louth Infirmary, and to the
January, 1878. County Louth Gaol.

T. B. M. & P.—Undoubtedly a brain may be disordered in function, possibly by the reflex disturbance set up by disease or disorder in some other organ. But what precisely does our correspondent mean by a "morally unhealthy brain"? Does he mean an organ which has acquired the habit of following out evil trains of thought, or working viciously, by automatic processes? We do not understand the hypothesis of an organ which is physically healthy, but morally diseased.

ANATOMY AND PHYSIOLOGY.

THE following were the questions on Anatomy and Physiology submitted to the candidates at the primary examination for the diploma of membership of the Royal College of Surgeons on Monday last, the 7th inst., when 110 offered themselves, who were required to answer at least four (including one of the first two) out of the six questions. On this occasion Mr. W. W. Wagstaffe, of St. Thomas's Hospital, the recently elected member of the Board, took part in the examinations.

1. State the functions of the pneumogastric nerve in relation to the heart, larynx, lungs, and stomach.
2. Describe the changes which take place in the ovaries and uterus at each catamenial period.
3. Describe the elbow-joint, and mention the structures in contact with it.
4. Describe the diaphragm—its attachments, relations, and action.
5. Describe in order the parts met with in the dissection required to expose the deep palmar arch.
6. Describe the innominate veins—their formation, course, and relations. Mention the veins entering them.

KING'S COLLEGE HOSPITAL.

A SOCIETY has been formed, numbering one hundred and forty students of King's College, London, to provide entertainments, books, newspapers, and toys for the patients in the various wards in King's College Hospital. Student visitors have been appointed by it to all the friendless male patients. Professor Lionel Beale has been elected the first President. The Society gives entertainments about once a week, and has been very much appreciated by the patients. It has executed a capital Christmas programme. We think the example set by King's might be well followed by other hospitals. Contributions in money and kind are received by the Secretary or Treasurer, Hospital Society, King's College Hospital, W.C.

A CONTRAST.

To the Editor of THE LANCET.

SIR,—I have just read the report in the "Mirror," by Mr. J. Morgan, of the old man who had amused himself by passing about seven inches of a strip of kamptulicon into his urethra, with the avowed object of freeing the passage. In contrast with it, an account of a somewhat similar instance of the failure of the well-meant attempt of another patient to relieve himself of the opposite difficulty may not be out of place.

In June last I had under my care an old man, aged seventy-six, who had introduced his penis into a three-quarter inch iron gas-socket, consisting of an iron cylinder about an inch and a half long, weighing four ounces and a quarter, and furnished with a female screw, ordinarily serving to connect two gas- or water-pipes having male screws at their extremities. He volunteered the statement that finding he had difficulty in retaining his urine, he thought that this iron band might prove of service to him. When I first saw him it was in an inconvenient place to examine into the nature of his complaint; but from his significant gestures and his confession that he had "made a mistake," I did him the injustice of jumping to the conclusion that he had contracted a gonorrhœa, although a moment's reflection would have reminded me that the complaint is exceedingly rare at such an age. A glance at his penis next morning revealed the true nature of the case. Close home to the pubis was the iron band (I was in ignorance at the time that it was in reality a female screw); in front of and beyond this was what seemed to be an enormous penis, so out of proportion to the solid iron ring or band which it considerably overlapped that I wondered how he could have got it on, and how I should get it off. If the worst came to the worst, I knew that one sweep of the bistoury would quickly release him; but it was clearly impossible to cut through the iron. As a tentative measure, and with a view to present relief, I firmly strapped his penis, and gave him a bandage to keep it in apposition with his belly. This gave him great comfort. In the evening I admitted him to the infirmary. Meanwhile I had procured a yard and a half of the strongest elastic band a neighbouring draper's could supply, and, armed with this and an exploring needle, I commenced operations. I found that the strapping had had no appreciable effect; so first cleansing off all the adhesive plaster with turpentine, I well oiled the penis, and then having made numerous acupunctures, I as tightly as possible applied the elastic band in the same way as an Esmarch's bandage. After waiting a short time I released the bandage and renewed the punctures, repeating the process about half a dozen times in half an hour, at the end of which time I had made such an impression on the œdema of the penis that I was able to force the glans back under the prepuce through the iron constriction that had been the cause of the trouble. I kept him in bed the next day, and ordered him to bathe his penis in hot water, and the next day after he was well enough to be discharged.

The mental condition that led these patients to experimentise upon themselves seems to me to be similar and singular. I think they are both to be congratulated upon the favourable results.

I am, Sir, yours obediently,
R. J. SHEPHERD, Medical Officer.
Infirmary, St. Olave's Union, Rotherhithe, Dec. 20th, 1877.

GAOLS AND SANITARY AUTHORITIES.

To the Editor of THE LANCET.

SIR,—Could you kindly inform me in virtue of what prerogative gaols claim to be exempt from the jurisdiction of the local sanitary authority in whose district they are situated? Is it because sanitary matters are supposed to fall within the scope of the Government gaol inspectors at their periodical visits? Your obedient servant,
Dec. 31st, 1877. INQUIRER.

*** Are gaols exempt? We question the fact, if the gaols commit any offence coming within the jurisdiction of the local sanitary authority.—ED. L.

THE DEPORTATION OF PAUPERS.

A DEPORTED pauper, who was far advanced in phthisis, committed suicide last week in the North Dublin Union by cutting his throat. He was sent to Dublin on a removal warrant from Liverpool on the 21st November; but catching fresh cold in the transit, being a deck passenger, and insufficiently clothed, he suffered for several nights previous to his death such excessive pain that to relieve himself he terminated his existence. The city coroner held an inquest on the 4th inst., and after hearing the necessary evidence, said that if the man's death had been accelerated by the voyage, the person who sent him would be guilty of manslaughter, and adjourned the inquiry in order to obtain information as regarded the man's state of health when he left Liverpool, and the authority upon which he was removed. The act of removing a patient in the last stage of consumption in the way alleged seems a most cruel proceeding, and discreditable to all engaged in the transaction.

De Lunatico Inquirendo.—The Lord Chancellor; £1500 per annum; medical or surgical.

A QUERY.

To the Editor of THE LANCET.

SIR,—Could any of your readers refer me to the notice of the case where Billroth removed by operation a villous tumour from the male bladder? I have searched in vain various surgical records for what, I believe, I have read. I am, Sir, yours &c.,

Jan. 6th, 1878. R. H. T.

Doubtful.—The case is one for consideration, not necessarily for not charging.

A Senior Student.—The best work is Barnes's; of small works, Atthill's.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. F. Mason, London; Mr. C. Macnamara, London; Mr. Napier, London; Mr. Barnes, London; Mr. C. T. Williams, London; Mr. Larnworth, Salford; Mr. Richardson, Armfield; Dr. Richardson, Dublin; Dr. Macdonnell, Dundalk; Dr. Tatham, Salford; Mr. Fausset, York; Mr. Harrison, Ipswich; Mr. B. Hill, London; Dr. Taaffe, Brighton; Dr. Ferguson, Angur; Dr. Cobbold, London; Mr. Bell, Exeter; Dr. Frew, Brandon; Dr. Boyd, Strabane; Mr. Ferguson, Tullich; Mr. Bayles, California; Mr. Bigg, London; Dr. Wilson, Worcester; Mr. Powell, Bromyard; Mr. Sharp, Bradford; Mr. Gore, Bath; Mr. Pemberton, Birmingham; Dr. Waters, Liverpool; Dr. Miller, Glasgow; Mr. Thomas, Swansea; Mr. Darke, Salisbury; Dr. Balfour, Wimbledon; Mr. Purves, Kelso; Dr. Ballenden, Sedgley; Dr. D. Johnson, London; Mr. Hay, Hull; Dr. Foulis, Glasgow; Mr. G. F. Berkeley, Poole; Mr. H. Morris, London; Mr. Foster, Wisbeach; Dr. Whitmarsh, Hounslow; Mr. Barber, London; Mr. Timmins, Carmarthen; Dr. Marshall, Nottingham; Dr. X. Galezowski, Paris; Mr. Morton; Dr. Cory, Buckhurst Hill; Mr. Abel, Forest-gate; Mr. Custance, London; Dr. Alexander, Bradford; Mr. Heygate, Kibworth-Beauchamp; Mr. Sparrow, Chichester; Dr. Daly, Dalston; Mr. Silverlock, London; Mr. Marchant, Holloway; Mr. Sarjeant; Dr. Gibson, Edinburgh; Dr. Wilson, Alton; Dr. Lloyd, Bangor; Dr. Stocker, Upton; Mr. Rigden, Taunton; Dr. Klernander, Devon; Dr. Kennedy, Peterborough; Mr. Broom, Cheltenham; Dr. Adams; Mr. Baird; Dr. Yeldham; Dr. More, Rothwell; Dr. Ellis, Gloucester; Mr. Cooke; Mr. Harriot; Mr. Beck; Mr. Whalley, Bradford; Dr. Rawson, Thornton; Mr. Spinks; Mr. R. Smith; Mr. Morley; Dr. Holder, Hull; Dr. Fraser; Mr. Linacre; Dr. Sweto; Mr. Warner; Dr. Smith, Kilburn; Dr. Crab, Holloway; Mr. Roberts; Dr. Clarke, Folkestone; Dr. Seguin; Dr. Morgan; Dr. Hime, Sheffield; Polonius; P. H. L.; A Senior Student; De Lunatico Inquirendo; Vicar, Rochdale; A Guardian; Tyro; Nesciens; Galen; M.B.; Subscriber; T. C.; W. A., Leeds; S. C. K.; Alpha; Anti-Humbug; Momus; Ichiban; Theta; Stigma; Medicus; W., Shipston; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Kemp, Castleford; Mr. Jennings, Coleford; Mr. Newington, Goudhurst; Mr. Downey, Newcastle; Mr. Hargreaves, Armley; Mr. Hardman, Blackpool; Mr. Roods, Hastings; Mr. Grieve, Blackburn; Mr. Harris, Loighton Buzzard; Mr. W. Jones, Pontardulais; Mr. Farrow, Ingham; Mr. Caldwell, Shotts; Dr. Campbell, Bridge of Allan; Dr. Eastwood, Darlington; Dr. Poulton, Queensland; Mr. Lloyd, Cheswardine; Rev. D. H. Sadbury; Mr. Penny, Isleworth; Dr. Houseman, Newcastle-on-Tyne; Mr. Grigor, Stanley; Mr. Hartness, Whitehaven; Mr. Nicholson, Bolton; Dr. Burden, Belfast; Dr. Wilson, Huddersfield; Mr. Baker; Mr. Nicholls; Dr. Kean, Gunnislake; Mr. Bland; Dr. Jones, Cardigan; Dr. Geddie, Accrington; Mr. Brown, Tredegar; Mr. Holder; Dr. Jackson, Chorley; Dr. Hendrey, Liverpool; Dr. Grove, St. Ives; Mr. Lamb; Dr. Fleetwood, Liverpool; Dr. Hackney, Warbleton; Mr. Walker; Mr. Craigie; Dr. Archer; M. B. M.; M.D., London; C. M.; H. O., Bridlington; M.D.; Medicus, Manchester; H., Nottingham; Surgeon; Provident Surgeon; X. Y., Shrewsbury; W. R.; Beta; Q. T.; X. Y. Z.; H. W.; C., Hull; S. W., Coventry; W. A. N.; Assistant; W. M., Stratford; X.; Why; Medicus, Chelsea; Gamma.

Bristol Evening News, Worcester Journal, Bournemouth Observer, Dover Express, Auckland Times, Runcorn Guardian, Yorkshire Post, Hornet, Woman's Gazette, Birmingham Daily Post, Temperance Record, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, JAN. 10TH, 1878.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radia. in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 4	29·91	S.W.	47	48	..	48	45	0·17	Raining
,, 5	30·19	E.	43	44	..	47	42	0·34	Overcast
,, 6	30·01	N.E.	45	47	..	49	42	0·01	Cloudy
,, 7	29·61	W.	38	40	..	45	37	..	Fine
,, 8	29·75	N.E.	37	38	..	42	35	0·01	Cloudy
,, 9	30·18	N.E.	35	37	..	41	33	0·02	Cloudy
,, 10	30·29	N.	35	38	..	44	34	..	Overcast

Medical Diary for the ensuing Week.

Monday, Jan. 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL. — Operations, 3 P.M.; on Wednesday, 2 P.M.; on Thursday, 3 P.M.; and on Saturday, 2½ P.M.
MEDICAL SOCIETY OF LONDON. — 8½ P.M. Mr. Wordsworth will bring forward Six Persons having Congenital Displacement of the Crystalline Lens."—Dr. Foulis, of Glasgow, will read a paper "On Excision of the Larynx," and exhibit a Patient on whom the operation was performed.

Tuesday, Jan. 15.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION. — 3 P.M. Prof. Tyndall, "On Heat, Visible and Invisible." (Juvenile Lectures.)
PATHOLOGICAL SOCIETY OF LONDON. — 8½ P.M. The following Specimens will be shown:—Dermoid Cysts along Branchial Fissures; Case of Paralysis Agitans; Diaphragmatic Hernia; Phosphatic Diabetes; Gangrene of Lung, with Lead-poisoning; Aneurism of Cerebral Arteries; Aneurism of Brachial Artery from Embolism; Rupture of the Aortic Valves; Prostatic Tumours removed during Lithotomy; Impacted Fracture of Shaft of Femur; Sequel to Case of Recurrent Sarcoma; and other Specimens.

Wednesday, Jan. 16.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

Thursday, Jan. 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.
HARVEIAN SOCIETY. — 8 P.M. Casual Communications. — Dr. Ashburton Thompson, "On the Pulse-rate considered in relation to Post-partum Hæmorrhage."

Friday, Jan. 18.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, Jan. 19.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

TERMS FOR ADVERTISING IN THE LANCET.

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